

XEROX

Xerox University Microfilms

Ann Arbor, Michigan 48106

WESTERN AMERICANA

Reproduced from the original in the collection of
THE UNIVERSITY OF ILLINOIS LIBRARIES

LIBRARY
OF THE
UNIVERSITY OF ILLINOIS

AGRICULTURAL EXPERIMENT STATION
THE UNIVERSITY OF NEVADA

BULLETIN No. 69—JULY, 1909

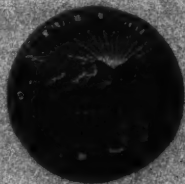
A Report on Irrigation Laws and Litigation in Nevada

BY

HENRY THURTELL
FORMERLY STATE ENGINEER

AND

GORDON H. TRUE
IN CHARGE OF CO-OPERATIVE IRRIGATION
INVESTIGATIONS IN NEVADA



PUBLISHED BY THE UNIVERSITY OF NEVADA
RENO, NEVADA

THE BOARD OF CONTROL

THE REGENTS OF THE UNIVERSITY OF NEVADA.

HON. JOHN SUNDERLAND, Chairman	Reno
HON. CHARLES B. HENDERSON.....	Elko
HON. JOHN J. SULLIVAN.....	Virginia City
HON. FRANK WILLIAMS.....	Good Springs
HON. A. A. CODD.....	Goldfield
HON. GEO. H. TAYLOR, Secretary.....	Reno

STATION STAFF

JOS. EDWARD STUBBS, LL. D., Director.....	Publications
P. BEVERIDGE KENNEDY, Ph. D....	Botany, Horticulture and Forestry
PETER FRANDSEN, A. M.....	Consulting in Bacteriology and Zoology
GORDON H. TRUE, B. S.....	Agriculture and Animal Husbandry
SAMUEL B. DOTEN, B. A.....	Entomology
SANFORD C. DINEMORE, B. S.....	Chemistry and Dairying
J. E. CHURCH, Ph. D.....	Co-operative Observer in Climatology and Meteorology
WINFRED B. MACK, D. V. M....	Bacteriology and Veterinary Science
THEODORE W. CLARK.....	Superintendent of Farm
MRS. T. W. COWGILL, M. A.....	Librarian
CAROLYN M. BECKWITH.....	Stenographer

TABLE OF CONTENTS

	Page
Prefatory Note	4
Acknowledgments	5
Method of Acquiring Water Rights	7
Litigation in the Truckee Basin	12
Litigation on the Humboldt River	16
Humboldt County, Bliss <i>vs.</i> Grayson	21
Lovelock Valley Litigation	25
Litigation in the Carson River Basin	27
Litigation in Ormsby County	30
Litigation in Douglas County	33
Litigation in Lyon County	41
Litigation in Churchill County	43
The State Engineer	44
The Walker River Adjudications	48
The Pacific Livestock Company <i>vs.</i> Thomas B. Rickey, <i>et al.</i>	50
The Value of the State Engineer's Office	56

PREFATORY NOTE.

NEVADA AGRICULTURAL EXPERIMENT STATION, RENO, NEVADA.

TO THE DIRECTOR: I hand you herewith a report on Irrigation Laws and Litigation in Nevada, prepared by Professor Henry Thurtell, formerly State Engineer of this State. This report is presented as a part of Co-operative Irrigation Investigations authorized by act of the State Legislature, in which the U. S. Department of Agriculture and the State of Nevada are the co-operating parties. This particular work was undertaken under the direction of Elwood Mead, then Chief of Irrigation Investigations, as a part of a somewhat comprehensive report on Irrigation in Nevada. Under the terms of the agreement under which this work was done the report is available for publication by the Department of Agriculture and by the Nevada Experiment Station. I submit this report to you as a bulletin of the Nevada Agricultural Experiment Station.

Respectfully,

GORDON H. TRUE,

Professor of Agriculture and Agent in Charge of
Co-operative Irrigation Investigations in Nevada.

ACKNOWLEDGEMENTS.

Acknowledgements are due for the very great assistance received from the Bulletins of J. D. Stannard and L. H. Taylor, published by the Nevada Agricultural Experiment Station, and from the unpublished data compiled by A. E. Chandler for Irrigation Investigations. Many of the notes reviewing water litigation in this State were taken from the reports of Mr. Chandler's and Mr. Stannard's investigations, and the writer of this has not himself examined the county records where the records already compiled by these men were available. Whenever convenient so to do the exact language of Mr. Stannard, Mr. Taylor and Mr. Chandler has been adhered to in this report and without specifying in each case that such is the fact.

A REPORT ON IRRIGATION LAWS AND LITIGATION IN NEVADA.

METHOD OF ACQUIRING WATER RIGHTS.

The earliest effort made by the Legislature of Nevada to guard or regulate the acquisition of rights to water appears to have occurred in 1866, when a law was passed, approved March 3, 1866, that sought to secure permanent records concerning new claims. The first section of the Bill is as follows:

SECTION 1. Any person or persons desiring to construct and maintain a ditch or flume within any one or more of the counties of the State shall make, sign and acknowledge before any officer authorized to take a certificate, an instrument specifying, first, the name by which the ditch or flume shall be known; second, the names of the places which shall constitute the termini of said ditch or flume. Such certificate shall be accompanied with a plat of the proposed ditch or flume and shall be recorded in the office of the County Recorder of the county or counties within or through which such ditch or flume is proposed to be located, and the record of such certificate and plat shall give constructive notice to all persons of the matters therein contained. The work of construction of such ditch or flume shall be commenced within thirty days of the time of making the certificate above mentioned and shall be continued with all reasonable dispatch until completed.

Sec. 2 of the act provided a method by which the right of way over private land could be secured when necessary for a ditch or flume.

It will be observed that the law did not require any statement concerning the capacity of the proposed ditch or flume, or the quantity of water claimed, or the acreage to be irrigated thereby. Little or no further legislation of any consequence concerning water rights was enacted until 1889. An act was then passed containing a provision for the recording of claims to water then existing. The law also contained a provision for the adjudication of these claims and of hearing and settling all questions concerning the priority of appropriation of water between ditch companies and other owners of ditches drawing water for beneficial purposes from the same stream, or lake, within the same irrigation district. The law further contained a provision prohibiting any person, association, or corporation representing any ditch, canal or reservoir from giving any testimony before the court adjudicating the claim until after the certificate of the claim had been filed according to the provisions of the law. The

law also provided that existing claims to water should be filed prior to September 1, 1889. The effect of this law was seen by the great numbers of statements, or claims, that were brought to the County Recorders during the closing days of August, 1889. Statements were made concerning anything that could, under any circumstances, be called a ditch. Not only were statements filed concerning main ditches, but concerning laterals as well. Old river channels and alongs were included in the list, nor were the main channels of the rivers overlooked. Statements are found on record claiming the main channel of the Humboldt River as a ditch, and claiming an appropriation of so many inches of water "by original construction." This certainly was an "original construction" of statutes and decisions concerning what should constitute a water right. During the summer of 1901 a very complete examination of all the records concerning ditches that had been filed with the County Recorders was made by J. D. Stannard in the county offices of Elko, Eureka, Lander and Humboldt Counties. A similar examination of the county records of Washoe County, Douglas, Lyon, Esmeralda and Churchill Counties was made during the summer of 1902 by Mr. A. E. Chandler.

These claims to water are very indefinite and, in many cases, absurd. Some have not expressed the quantity of water diverted in terms of any unit suitable. One claims three hundred cubic inches, another claims one hundred square inches of water. Many have used the term "miner's inches," but few have expressed the head under which the water is to be measured. The description of the ditch is often totally omitted, or the width and depth given with no hint of grade used.

In Elko County there were one hundred and fifty claims recorded under act of 1866. Nineteen of these contain no suggestion as to the quantity of water intended to be appropriated or used, or of the size of the ditch through which the water is diverted. Seventy of these mention the width or depth of the ditch. In no case is the grade of the ditch given. One claims sufficient water to irrigate the "meadow land." Another claims sufficient water to irrigate the "ranch." In neither of these cases was the number of acres to be irrigated stated. One specified three hundred "feet" as the quantity claimed. Seven state the amount claimed as a definite number of inches, and nine state the quantity claimed in "miner's inches."

Under the law of 1889 there were filings made upon 281 ditches in Humboldt County, and since 1889 twenty more claims had been filed prior to 1901. From these records it would appear that the total amount of land irrigated from the Humboldt River in Humboldt County is 235,876 acres. Actually not one-third of that amount is irrigated in that county from the Humboldt River. One statement

claims enough for 150 acres of land. Eight statements claim a certain definite proportion of the stream. These eight claims are to irrigate 3,020 acres. Three statements claim all that the respective ditches concerned will carry, the dimensions of the ditches being given in each case. One hundred and forty-two claims are made where the inch is the unit of measure. Sixty-two claims are made in which water appropriated is claimed in inches under a four-inch pressure. These sixty-two statements claim 301,172 inches under this pressure to irrigate 72,069 acres, or at the rate of nearly 2.8 inches per acre. Another makes claim to the waters of the Humboldt River for 655,200 cubic feet flowing continuously. Thirty-six of these statements specify the cubic foot per second as the unit with which they state the quantity of water claimed and appropriated. No person conversant with the conditions along Nevada streams can examine these records without becoming convinced that the great majority of claims are either indefinite or grossly exaggerated.

The water claimed in Humboldt County is appropriate-

ted for use on.....	235,876 acres
In Lander County on.....	31,181 acres
In Eureka County on.....	69,650 acres
In Elko County on.....	155,573 acres
Total	492,280 acres

Certainly not more than half of this land for which water is claimed is irrigated, even at this date, and the average claim, where expressed with sufficient definiteness to be a claim for any quantity at all, is for more than twice as much water as ever could be used with advantage even upon the total quantity of land for which water is claimed. Making such estimates as is possible of the indefinite claims and disregarding others for which no basis of computation can be found, the total claims to water from the Humboldt River aggregate not less than 17,500 acc. feet. If it is assumed that this is a claim or has initiated a right to the use of this amount of water throughout an irrigating season of ninety days, it would require 3,150,000 acre-feet. The average discharge of the North and South Forks of the Humboldt River in the years 1900 to 1905 during the months of April, May, June, July and August was 143,000 acre-feet. At Palisade during these years and the months above given the discharge was 206,197 acre-feet; at Golconda, 89,104 acre-feet; at Ormana, 88,681 acre-feet. Assuming that as much water was diverted above Elko as returned to the river at Elko, and that all this might be re-diverted and again returned above Palisade, all this re-diverted and again returned above

Goleconda, again diverted and again returned above Oreana, then diverted again in Lovelock Valley, it would allow for use above

Elko	143,000 acre feet
Between Elko and Palisade.....	143,000 acre feet
Between Palisade and Goleconda.....	206,197 acre feet
Between Goleconda and Oreana.....	89,104 acre feet
Below Oreana	88,531 acre feet
Total	669,832 acre feet

It would not be possible to divert 143,000 acre feet between Elko and Palisade for the quantity of land upon which it is used does not exceed 5,000 acres. No more than 669,800 acre feet can possibly be diverted during an ordinary season between April 1 and September 1, and this would be sufficient to satisfy a very little more than one-fifth of the claims on the river. To state the matter in another way—the year 1904 was an extraordinarily wet year in Nevada. All the farmers along the Humboldt River had an unusually abundant supply of water. The mean flow of the stream was highest during the month of June. During that month the mean flow of the

North Fork was	284 sec. feet
South Fork	635 sec. feet
The main river at Palisade.....	1,532 sec. feet
The main river at Goleconda.....	902 sec. feet
The main river at Oreana.....	656 sec. feet

Total 4,009 sec. feet

This is the maximum quantity that it was possible to divert from the stream during the month of maximum flow in a year of extraordinary wetness. This quantity is not one-fourth of the total quantity of claims on the river. It follows that either three out of four claims are worthless or meaningless, or that the average claimant is seeking to initiate a right to four times as much water as he can ever acquire. The conditions along the different streams in Nevada are not at all alike. But the statement of a claim to water made in accordance with the fancied right of each appropriator has produced no better results along other streams than on the Humboldt River.

On the main Walker River in Nevada there are ten main ditches. Of these but three state in their certificates of appropriation the amount of water diverted or to be diverted.

There are ten ditches diverting water from the East Fork of the Walker River in Mason Valley, Nevada. Of these but four state the amounts of their respective claims. There are six ditches diverting

water from the West Fork of the Walker River in Mason Valley. None of these state the amount of their claims.

Out of thirty-six ditches from the Main Walker and its East and West Forks in Lyon County, only seventeen have any recorded notice whatever. Such notices as have been filed are generally worthless. The claim is either misstated, or not stated at all, in terms of any unit that is applicable.

The same absurdity in claims is found concerning ditches all along the length of the East Fork and the West Fork in both California and Nevada. One claims "all the water flowing through said Canyon in said stream, together with all water emptying into said stream from springs, drains and other sources." Another claims "all the water of this Dogtown Creek and all of its branches and tributaries of every kind and description." There are seven ditches diverting water from Dogtown Creek and each one claims all the water. There is also a claim for "4,000 feet" from Dogtown Creek. There is a claim on the East Walker for 15,000 inches under a 20-inch pressure.

On the Carson River in California and the Truckee River in California the claims are characterized by the same indefiniteness in regard to quantity of water diverted as has been seen on the Walker and Humboldt Rivers, but on the Carson and the Truckee Rivers in Nevada most settlers seem to have made a diligent effort to record their claims in accordance with the Act of 1889.

In Churchill County on the Carson River there are twenty-one main ditches with an aggregate claim of 380 sec. feet. Measurements of their ditches in 1902 and 1903 would indicate that the ditches are of sufficient capacity to convey about 280 sec. feet. There are seven ditches on the Carson River in Lyon County. Their aggregate claim is for 215 sec. feet, and their ditches are capable of diverting about 115 sec. feet. In Douglas County the aggregate amount of water claimed is 1,542 sec. feet, and the aggregate amount the ditches are capable of carrying is about 600 sec. feet.

On the Truckee River for the Truckee Meadows in Nevada there are twenty-eight ditches diverting water and the aggregate of their claims is 1,368 sec. feet. The mean flow of the Truckee above all the ditches is for May, 2,125 sec. feet; for June, 1,490 sec. feet; for July, 698 sec. feet; for August, 562 sec. feet. It is unlikely that but little of this water once diverted can get back to the river above the points of diversion of the other ditches of this valley. It can be seen that all these claims can be satisfied during May and June, but during July there is sufficient water to satisfy only half of them, and in August but four-tenths of the claims. These claims are not in proportion to their actual diversions. Some of the claims are greatly in

excess of the amount actually diverted and used, while others are less than the amount now diverted.

From the foregoing it will have been seen that the method of recording ditches in use in California and in Nevada produced no records worthy of the name. The only fact really proved by such a record is that at the time of filing the notice the claimant either had a ditch or was planning the construction of one. If filed under the Act of 1866, he was usually planning to construct a ditch, and whether or not the ditch was ever constructed the record does not tell. Not half of the claims filed under the act of 1866 resulted in actual construction, and the certificates for record were of such an indefinite character that they did not show what such certificates should show, namely: The name of the ditch; its location; the quantity of water it diverted; the stream from which the water was taken; the description and acreage of the land irrigated; the date of the construction of the ditch; and the the dates when separate parcels of land were brought under cultivation.

The filings made under the Act of 1889 were of a little more value, but these, too, are objectionable as forming the basis for the determination of rights in that the claims to water set up by these filings whenever definite are excessive. In many cases claims have been made to ten times the amount of water ever used, and in certain cases to one hundred times the water used or needed. They are often indefinite, not stating the amount of water required, or the descriptions and dimensions of the ditch with sufficient detail and exactness as to render it possible to calculate its capacity. They did not state the acreage of land irrigated, but the acreage for which water was claimed. They did not give the years during which the different parcels of land for which water was claimed had been brought under cultivation. Wherever a ditch has become abandoned the records show nothing concerning that fact. Many ditches were not recorded at all.

LITIGATION IN THE TRUCKEE BASIN.

There has been no court adjudication of rights to use water from the Truckee River. The stream has not been and is not now over appropriated. There is at all seasons of the year sufficient water in the river to serve all the users of water except during years of extreme scarcity.

The right instituted by the United States Government to divert 1,400 sec. feet to serve the farmers under the Truckee-Carson project would, if consummated and exercised, exhaust all the surplus water of the river during the latter part of the irrigation season. Up to this

4. Big ditch	amount not stated
5. Bailey's Ditch	200 inches

The rights to the last three were adjudged to be of equal priority. The plaintiff was allowed costs to be recovered from ten of the defendants and Defendants Gammon and Roussel were allowed costs from other defendants.

John Wright vs. E. Crane et al.

This was the second case to arise from the alleged wrongful diversion of the waters of Steamboat Creek. The complaint was filed January 17, 1900. The plaintiff and defendants possessed farms near the lower end of the creek. The rights of but seven ditches had been adjudicated in the case of *Hardin vs. Gammons* in 1877. Filings were made in 1889 for fifteen ditches diverting water from Steamboat Creek, the total amount claimed being 4,027.5 inches, or 80.55 sec. feet.

Two filings have been made since 1889—one for all the unappropriated waters of Steamboat Creek, and the second for 1,500 inches of the surplus waters. The findings of the Court were: (1) In March, 1862, John Wright, plaintiff, appropriated 200 inches of the waters of Steamboat Creek and now is entitled to possession and use of that amount, subject to the right of defendants as hereinafter set forth; (2) Defendant B. G. Clow appropriated 200 inches in 1859 and is now entitled to said amount; (3) Defendant E. Crane appropriated 125 inches in September, 1861, and later conveyed a portion to Defendants E. O. Crane, A. H. Stiles and A. H. Howard, and they are now entitled to said amount.

A decree was entered in accordance with the above findings on February 13, 1901, and the defendants were given judgment for their costs.

The total amount allowed by the Court findings to plaintiff and defendants was 525 inches, or 10 1-2 sec. feet. The average flow of Steamboat Creek during the months of July and August of an average year is probably not far from 10 sec. feet, and it is a manifest absurdity to allow a claimant to attempt to initiate a right for any such amount as 1,500 inches on this stream.

*Mrs. C. I. Candler et al. vs. Washoe Lake Reservoir
and Galena Creek Ditch Company.*

In the complaint filed October 2, 1902, plaintiffs claimed that their crops were lost in 1902 through the failure of the Reservoir Company to supply water contracted for, and asked judgment for \$2,000 damages.

The decree awarded the plaintiffs damages amounting to \$675.13 with interest at 7 per cent. and costs amounting to \$120.95.

S. C. Fogus vs. Reno Electric Light Company.

A suit was begun on July 12, 1888, by S. C. Fogus, the owner of a flour mill on the Truckee River in the town of Reno, to obtain an injunction restraining the Electric Light Company from maintaining a dam in the Truckee River immediately below plaintiff's tail race. The plaintiff claimed that the backwater thus caused in the tail race lessened the power obtained from his turbine wheels.

The plaintiff does not appear to have made good his point for judgment was rendered in favor of the defendants on September 12, 1888, and they were allowed their costs taxed at \$94.55.

James Anthers vs. Eliz. Bryant et al.

This suit arose from the alleged wrongful diversion of the water of Mill Station Creek at the upper end of Washoe Valley. The complaint was filed June 8, 1893, and on February 27, 1894, the Court held "that the defendants for a period of five years immediately preceding the commencement of this action used adversely to the plaintiff and all others the water flowing from Mill Station Creek through a flume or ditch to the house of defendants and thence across the road to the orchard of defendants," and "that the answer of defendants alleging a prescriptive title is sufficient, no objection having been made to the proof of prescription when offered by defendants." A decree was entered in accordance with the judgment. Supplemental findings were submitted by the attorneys for the plaintiff and accepted by the presiding judge, which stated that the plaintiff had openly objected to and had forbidden use of water by defendants.

A motion for a new trial was denied June 21, 1894. An appeal was made to the Supreme Court, where judgment was rendered December 13, 1894, reversing the judgment. The Supreme Court held that the original and supplementary findings were contradictory. The result of the new trial was that the presiding judge decreed all of the waters of Mill Station Creek to the plaintiff and ordered the defendants to pay plaintiff his costs taxed at \$121.45. The defendants were, however, allowed sufficient water for stock and household purposes.

M. Shields vs. Orr Extension Ditch Company.

The plaintiffs in this case claimed to have been damaged by water escaping from the Orr ditch and flowing upon his cultivated lands. The complaint was filed March 17, 1896, and in it the plaintiff asked judgment for \$1,000 damages, the costs of the suit, and a perpetual injunction protecting him from further damage.

The verdict of the jury was in favor of the plaintiff, but allowed damages only to the extent of \$50.36. The Court adopted the verdict of the jury, and in addition ordered the defendant company to pay the plaintiff's costs of the suit, taxed at \$192.85. The Court also

granted an injunction restraining the defendants from allowing water to escape upon the alfalfa and wheat fields of plaintiff, but denied the injunction preventing defendants from permitting water to escape upon plaintiff's pasture. This decree was filed on July 7, 1896.

Ebenezer Twaddle et al vs. Theodore Winters et al.

This complaint was filed October 16, 1902, and shows that this was a contest over the alleged wrongful diversion of a mountain stream, Ophir Creek, in Washoe Valley. In the decree filed June 23, 1903, the plaintiffs are decreed a prior right to the use of 184 miner's inches, or 3.68 cubic feet per sec. of the waters of Ophir Creek for domestic, stock and irrigation purposes from April 15 to November 15 of each and every year, and a prior right to the use of 20 miner's inches, or two-fifths of one cubic foot per sec. of time of the waters of Ophir Creek for household, stock and domestic purposes during the balance of the time. Said waters to be measured at the point, or points, where the same are delivered to and upon plaintiffs' lands. The defendants were perpetually enjoined from interfering with plaintiffs' rights and ordered to pay plaintiffs' costs, taxed at \$428.85.

There were about 173 acres watered by the plaintiff in 1903 with the waters of Ophir Creek. An appeal from this decision was made to the Supreme Court, by whom it was ordered that the plaintiffs' consent by stipulation to a modification of the decree in such manner that the plaintiffs are entitled to the prior right to the use of the 184 inches of water above referred to only during such time as the same is necessary for the proper irrigation of plaintiffs' land.

LITIGATION ON THE HUMBOLDT RIVER

This river, with its tributaries, passes through four counties—Elko, Eureka, Lander and Humboldt. In Elko County are the main tributaries of the Humboldt River and such litigation as has occurred in that county has been mostly between claimants of water upon creeks. In each case of the kind, to which the Court has given consideration, the claimants upon the creek have been treated as if the claims set up by them were the only claims to this water that the Court need consider. In no instance were the rights of lower irrigators on the main stream given any consideration whatever in the litigation over the water of a tributary. These lower irrigators, however, are often prior appropriators and the main stream is dependent upon the supply furnished by its tributaries. As an instance in point the case of La Moille Creek, a tributary of the Humboldt River from the south, might be cited. The plaintiffs were W. T. Smith, William H. Dakin and Edwin Odell against C. E. Noble, Elmer Dakin and fifteen other defendants. The judgment and decree are stated in the following terms:

I.

"It is hereby ordered, adjudged and decreed that the plaintiffs, W. T. Smith, Edwin Odell and William H. Dakin, are the owners of the usufruct and entitled to use and enjoy all of the waters of Lamoille Creek, described in the complaint herein up to and including the first fifty inches of water flowing therein and in the following proportions, to wit: W. T. Smith, 2-5 thereof; Edwin Odell, 2-5 thereof and William Dakin, 1-5 thereof.

II.

"Following the division of the first fifty inches of the waters of said Lamoille Creek, the next 292 2-3 inches of the waters flowing therein are divided as follows; or in case there be not that amount of water so flowing in said creek, the excess over fifty inches is awarded in proportion to the amounts herein stated:

"The plaintiff, W. T. Smith, is the owner of the usufruct and entitled to enjoy and use 53 1-3 inches of said 292 2-3 inches.

"The plaintiff, William H. Dakin, is the owner of the usufruct and entitled to use and enjoy 26 inches of said 292 2-3 inches.

"The plaintiff, Edwin Odell, is the owner of the usufruct and entitled to use and enjoy 53 1-3 inches of said 292 2-3 inches.

"The defendant, C. E. Noble, is the owner of the usufruct and entitled to use and enjoy 30 inches of said 292 2-3 inches.

"The defendant, Thomas Cahill, is the owner of the usufruct and entitled to use 30 inches of said 292 2-3 inches.

"The defendants, Victoria Reboule, Charles Reboule, Albert Reboule, Clara Reboule and Alma Reboule, are the owners of the usufruct and entitled to use and enjoy 20 inches of said 292 2-3 inches.

"The defendants, J. B. Gheen and Mary Gheen, his wife, are the owners of the usufruct and entitled to use and enjoy 10 inches of said 292 2-3 inches.

"The defendant, George Bower, is the owner of the usufruct and entitled to use and enjoy 5 inches of said 292 2-3 inches.

"The defendants, P. H. McDermott and Ellen T. McDermott, his wife, are the owners of the usufruct and entitled to use and enjoy 5 inches of said 292 2-3 inches.

III.

"Following said division of 50 inches and of 292 2-3 inches, the next 1,492 inches of water flowing in said Lamoille Creek is awarded to the several parties to this action in the following amounts and quantities, or, in case there be not 1,492 inches flowing in said creek in excess of said 50 inches and said 292 2-3 inches, then such excess is to be divided in proportion to the amounts and quantities next awarded to wit:

"The plaintiff, W. T. Smith, is the owner of the usufruct and entitled to use and enjoy 364 inches of said 1,492 inches.

"The plaintiff, Edwin Odell, is the owner of the usufruct and entitled to use and enjoy 264 inches of said 1,492 inches.

"The plaintiff, William H. Dakin, is the owner of the usufruct and entitled to use and enjoy 132 inches of said 1,492 inches.

"The defendant, C. E. Noble, is the owner of the usufruct and entitled to use and enjoy 247 inches of said 1,492 inches.

"The defendant, Thomas Cahill, is the owner of the usufruct and entitled to use and enjoy 75 inches of said 1,492 inches.

"The defendants, Victoria Reboule, Charles Reboule, Albert Reboule, Clara Reboule and Alma Reboule, are the owners of the usufruct and entitled to use and enjoy 90 inches of said 1,492 inches.

"The defendant, George Bower, is the owner of the usufruct and entitled to use and enjoy 75 inches of said 1,492 inches.

"The defendants, J. B. Gheen and Mary Gheen, his wife, are the owners of the usufruct and entitled to use and enjoy 45 inches of said 1,492 inches.

"The defendants, J. A. Roberson and Mary H. Roberson, his wife, are the owners of the usufruct and entitled to use and enjoy 112 1-2 inches of said 1,492 inches.

"The defendants, Judson Dakin and Mary Dakin, his wife, are the owners of the usufruct and entitled to use and enjoy 37 1-2 inches of said 1,492 inches.

"The defendant, Elmer Dakin, is the owner of the usufruct and entitled to use and enjoy 60 inches of said 1,492 inches.

"The defendants, P. H. McDermott and Ellen T. McDermott, his wife, are the owners of the usufruct and entitled to use and enjoy 90 inches of said 1,492 inches.

"The above mentioned appropriation of 50 inches of the waters of said Lamoille Creek is the first and prior right to the waters of said creek. The above mentioned appropriation of 292 2-3 inches of the waters of said Lamoille Creek shall constitute the second right to the waters of said creek, and shall be operative only when there is more than 50 inches of water flowing in said creek, and is only effective upon water in excess of said 50 inches. The above mentioned appropriation of 1,492 inches of the waters of said Lamoille Creek shall constitute the third right to the waters of said creek and shall be operative only when there is more than 342 2-3 inches of water flowing in said creek and is only effective and controlling as to waters in excess of 342 2-3 inches.

"An inch of water wherever the term is used herein, is understood and decreed to be a quantity of water which shall, under a 6-inch pressure, flow through an orifice one inch square.

"It is ordered, adjudged and decreed that all waters awarded by this decree shall be measured at the headgate of the separate ditches of the several and respective parties to whom such water is hereby decreed."

This case was brought before the District Court in Elko County in 1895, and has evidently been given very careful consideration by

the Court. In so far as determining and defining the rights of the different parties to the suit as against each other is concerned the language of the decree is clear and precise. When, however, it is considered that a hundred persons lower down on the main stream have an interest in the waters of Lamoille Creek, it must be regarded as unfortunate that the Court did not define the priorities of the different claimants to the several amounts of water by years. By so doing any other appropriator could have some idea as to whether his own rights antedated those of the litigants in this suit.

In a case brought in Elko County in 1898 to determine the priorities and adjudicate the claims to waters of Smith Creek, the following judgment and decree were rendered by the Court:

"To the several parties it is adjudged and decreed with respect to quantities of the waters of Smith Creek, described in the complaint, that are given and conceded to them by their stipulation filed on March 17, 1898, during the trial of this case.

"Upon filing of said stipulation and by consent of all concerned, the Court having continued and concluded said trial for the purpose of determining the rights of said Sanguinets and Alberti, Merkley and Young, Buscaglia and Zunino to the waters of Smith Creek conceded to them by said stipulation, to wit: Three hundred and seventy-five (375) miner's inches of said water from January 1st to July 15th of each year, two hundred (200) miner's inches from July 15th to July 20th of each year, and one hundred and fifty (150) thereafter for the remainder of the year. Of said specified waters the court adjudicates and decrees that said named parties have, own and use the following quantities awarded to them and at the following periods of the year respectively: From January 1st to noon of July 15th of each year there is awarded: To Merkley and Young the first five (5) inches. To Sanguinets and Alberti, the next forty-five (45) inches. Of the next forty-two (42) inches, to Merkley and Young five-sixths (5-6); to the Sanguinets and Alberti, one-sixth (1-6). Of the next fifty-four (54) inches, to Merkley and Young two-thirds (2-3); to the Sanguinets and Alberti, one-third (1-3). Next fourteen (14) inches to the Sanguinets and Alberti.

"Of the next sixty (60) inches, to Buscaglia and Zunino five-sixths (5-6); to Merkley and Young, one-sixth (1-6). Of the next thirty (30) inches, to Merkley and Young two-thirds (2-3); to Buscaglia and Zunino, one-third (1-3). Of the next one hundred and twenty-five (125) inches, to Merkley and Young, nine-twenty-fifths (9-25); to Buscaglia and Zunino, eleven-twenty-fifths (11-25); the Sanguinets and Alberti, five-twenty-fifths (5-25).

"From noon, July 15th to the end of each year, there is awarded

of said specified waters: First five (5) inches to Merkley and Young, the next twenty (20) inches to the Sanguinets and Alberti, the next twenty (20) inches to Merkley and Young, the next twenty (20) inches to Buscaglia and Zunino. Of the next forty (40) inches, one half (1-2) to Sanguinets and Alberti and one-half (1-2) to Merkley and Young.

"Of the next forty-five (45) inches, four-ninths (4-9) to the Sanguinets and Alberti, five-ninths (5-9) to Buscaglia and Zunino.

"Of the said waters in excess of one hundred and fifty (150) inches and amounting to fifty (50) inches which is set over and conceded to said named parties from July 15th to July 20th of each year, there is adjudged, decreed and awarded to said Sanguinets and Alberti the first ten (10) inches and remaining forty (40) inches is awarded and decreed as follows: Two-eighths (2-8) thereof to the Sanguinets and Alberti, three-eighths (3-8) thereof to Merkley and Young, and three-eighths (3-8) to Buscaglia and Zunino.

"By the terms inch wherever used by the Court in this case is meant a miner's inch and that amount of water which will flow through an orifice one inch square under 6-inch pressure.

"Each and all of the parties in this judgment, their agents, servants, or employees are enjoined from using or appropriating any of the waters herein awarded to the others, according to their respective priorities."

"A case in the District Court for the County of Elko, between W. J. Smiley, plaintiff, vs. William Henry and six others, defendants, came for trial June 24, 1901. None of the defendants except William Henry appeared. The result of this action was the adjudication of the waters of Deering Creek, which is given in the following terms:

"It is hereby stipulated and agreed between the above named W. J. Smiley and William Henry that the waters of Deering Creek mentioned in the pleadings herein, shall be divided as follows, to wit: From the first day of March to the fourth day of July of each year said W. J. Smiley shall have the first seventy-five (75) inches; said William Henry shall have the next twenty (20) inches; W. J. Smiley shall have the next fifty (50) inches; William Henry shall have the next twenty-five (25) inches. Of the next one hundred (100) inches W. J. Smiley shall have three-fourths (3-4) and William Henry one-fourth (1-4). From the fourth day of July to the first day of March following of each year, W. J. Smiley shall have the first fifty (50) inches; William Henry shall have the next twenty (20) inches; W. J. Smiley shall have the next seventy-five (75) inches; William Henry shall have the next twenty-five (25) inches. Of the next one hundred (100) inches W. J. Smiley shall have three-fourths (3-4), and William Henry one-fourth (1-4).

"Each party is at his own expense to put a substantial box at the head of each ditch where he takes water out of the main creek; said

boxes must be so constructed that water can be readily measured therein.

"All water is to be measured at the point where it is taken from the main creek and above the main wagon road running from the "Smiley Home" in front of the "Henry House."

"By an inch of water, whenever used in this stipulation, it is understood that quantity of water which will flow under a 6-inch pressure through an orifice one inch square."

No provision appears to have been made by the court for the enforcement of the decrees rendered. Each party was left to obtain his rights under the decree by any means available and in case of illegal distribution contempt proceedings would be necessary to prove the alleged conditions and the expense and trouble in doing this is often greater than the value of the water.

A Court should take into account in a case of this kind the great distances often between farms whose lands are irrigated from the same stream and the impossibility of one of the users of water, particularly a lower user, being able to keep himself informed concerning the conditions of use on the other farms on the same stream. The lower users are generally robbed by the upper ones and they have no adequate means of protecting themselves, even after the litigation and decrees as in the above cases.

It would be possible for a Court to provide for the selection of a person each year who should distribute the water to the different users in accordance with their respective rights. Provision should be made for his fair compensation and he should be required to furnish bonds for the faithful performance of his duties.

HUMBOLDT COUNTY.

One of the most noted cases ever tried in Nevada concernig water was the case of Bliss vs. Grayson. The suit was brought by G. D. Bliss against G. W. Grayson, J. P. Anderson, William Dunphy and a number of others. Nearly all, if not all, the parties to this suit were diverting water from the Humboldt River in Eureka and Lander Counties for the irrigation of their lands.

The suit was commenced July 8, 1889, and was finally concluded in the lower court December 11, 1897, by an order denying a motion for a new trial. The case went to the Supreme Court, from which a decision was handed down in January, 1899, reversing the order denying a new trial and the case was remanded for further proceedings.

In this trial it was claimed by Bliss that he was the owner of 5,000 acres of land, through which flowed the Humboldt River. He claimed the right to divert 20,000 inches of the water of the river measured under a 4-inch pressure for the irrigation of these lands. He claimed to have been in possession of these lands and of the right to use them

waters for more than twenty years, through the use of the water by his predecessors in interest and himself. He claimed that this use had been continuous until March or April, 1889, when the defendants, by means of dams and obstructions, diverted the water from the stream, and the court was asked to abate the nuisance and enjoin the defendants from diverting the waters from the stream.

Grayson on his part denied the allegations of the complaint and claimed rights acquired through appropriation and use antedating the filing of this suit; rights that were initiated during the years 1874 to 1884.

The action was dismissed in the case of all the original defendants except three—G. W. Grayson, J. P. Anderson and William Dunphy—the three largest users. It was, however, shown that the other defendants, concerning whom the action was dismissed, were maintaining dams in the channel of the Humboldt River and were diverting water from the river at the times alleged by Bliss; that Grayson, Anderson and Dunphy were diverting all the waters of the river without the consent of Bliss and to the damage of the latter.

The findings of fact were to the effect that Bliss had acquired the right to use 14,000 inches of the water of the river for the irrigation of his lands. The lands that had been watered by Bliss amounted to about 1,500 acres, upon which wild hay and other crops were grown. The Court evidently believed that the evidence showed that the amount of water named, 14,000 inches, was necessary to irrigate that particular 1,500 acres of land.

The Court held that this right was prior to that of Grayson, Anderson and Dunphy, and decreed that they should be restrained from maintaining dams and obstructions in the channel of the river and diverting water to the damage of the plaintiff.

In commenting on this case the Supreme Court says in part as follows:

"It will be observed that the respondent sought by his complaint to have the dams and obstructions, maintained in the Humboldt River by the appellants and their co-defendants, abated as nuisances, the diversion of the waters thereby enjoined, based upon an alleged violation or invasion of his rights to the use of 20,000 inches of said water for certain beneficial purposes, under prior appropriation and use alleged to have been for many years adverse to the appellants and their co-defendants. The separate answers of the appellants and their co-defendants in effect deny all the material averments of the complaint and affirmatively show rights to the use of specific quantities of the waters of said stream under prior appropriation thereof for beneficial purposes, and ask the court to find and decree to each the specific quantity claimed for the purpose claimed and in the manner claimed.

"It is further shown by the supplemental answer of the appellants and the co-defendant, Dunphy, that certain of the other defendants to the action, as to whom the action was dismissed claimed, each for himself, certain specified quantities of water, by appropriation, for beneficial purposes, which rights were subordinate to the rights of the answering defendants; that the defendants were, at the time of the alleged invasion of the respondent's right, and ever since have been diverting the water. It is shown by the answer of John R. Bradley and George Russell, and by the answers of a number of other defendants, that each was maintaining obstructions and dams in the river above the lands of the respondent, by which each was diverting the waters under a claim of right to do so, alleged to be superior to the respondent's right. In other words, it is shown by the verified pleadings of the appellants, and some of their co-defendants, that each was diverting the waters of the river in the manner alleged, for beneficial purposes, under claim of right to do so by appropriation and use. Before the decision was rendered, and after the trial, it appears from the record that the court, by order, dismissed all the defendants from the action except these appellants and Jennie G. and Carmen W. Dunphy, executrices, over the objection of the appellants, and they assign this action of the Court as one of the grounds of error.

"The court, in its findings and decision, treated the action as one to abate and enjoin a nuisance. It is clearly shown by the answers of the defendants that, at the time of the wrongful diversion, each was maintaining dams and obstructions in the Humboldt River, and thereby diverting its water, under claim of right to the same for beneficial purposes by actual appropriation. The evidence without dispute shows that some of the defendants to whom the order of the court applied were, at the time of the diversion complained of, holding back and diverting a large volume of the water of the river by means of dams and obstructions, erected and maintained above the lands of the respondent, but there is absolutely no showing that such dams and obstructions were maintained and such diversion thereby made under claim of right to do so by appropriation or otherwise, of any of the waters of the river, for any beneficial purpose whatever, as against either the claim of the respondent or of the appellants. Not only is it shown by the answers of these defendants and by the undisputed testimony adduced on the trial, that they were, at the time of the alleged diversion, and in the manner alleged, holding back and diverting the waters without any apparent right thereto, but the respondent's complaint in specific terms so charges. * * * *

"Under the statute it is the peremptory duty of the Court to bring in all parties, whose interests would be affected by the decision, as defendants to the action. And it was manifestly an error to dismiss the action against any of them.

"The only reasonable enjoyment or use to which the appellants' dams could be devoted or put was for those purposes for which they were constructed, and had been so long used, and were then being used and enjoyed, and such use and reasonable enjoyment were lawful and did not, under the law, constitute the same a nuisance.

"Many objections are urged against the findings of the Court, but we do not deem it necessary to consider all. A reference to the findings as set out in this opinion shows that the Court found, in direct terms, that the appellants and their co-defendants, Jennie C. and Carmen W. Dunphy, executrices, diverted all the waters of the Humboldt River during the times complained of. This finding is clearly against the evidence. It is shown as an undisputed fact, that the defendant, Blossom, and other defendants diverted a large volume of the water of the river during said time, above the respondent's lands, by means of dams and other obstructions, maintained below the lands of Grayson, and no showing whatever was made of any claim or right to make such diversions, as against the respondent or appellant.

"A very serious question is raised as to the finding of the Court that 14,000 inches of water were necessary to irrigate respondent's land. . . .

"The order denying appellant's motion for a new trial will be reversed, and the cause remanded for further proceedings in accordance herewith."

The opinion was rendered by Justice Massey, Justice Belknap concurring, Chief Justice Bonnifield dissenting. (24 Nev. 422-461).

This case never came to trial again; it was in the courts ten years. Each point was contested with all the skill and ability that able counsel could command. The cost has been conservatively estimated at \$50,000, and the case ends where it began, with nothing accomplished. Not a single person's right was defined. The suit was commenced at a time when the law of 1889 was in force and it might have been made the basis for the determination of all the rights of the irrigators from the Humboldt River between Beowawe and Golconda. It is, however, a cause for gratification that the judgment as given was reversed by the Supreme Court, for a finding of 14,000 inches of water to supply 1,500 acres of land would have been so excessive as to have been a great hardship upon all the adjacent appropriators. It would, too, if allowed to stand, have been a mischievous example exerting its influence upon succeeding litigation.

A case was tried in 1876, which is known as the case of J. W. Brown vs. L. A. Ashley. The action was brought to recover damages for the alleged wrongful diversion of the water of Coyote Creek for a decree entitling the plaintiff to the use of the water and an injunction restraining the defendant from diverting or using the water. The judgment and decree rendered gave all the waters of the creek to the plaintiff, except that the defendant may use such portion of the waters as may be necessary for domestic purposes but not for irrigation.

In 1879 a similar case was brought between the same parties over the same stream. The court found that the defendant, during

the years 1877, 1878 and 1879, wrongfully and unlawfully diverted some of the waters of Coyote Creek and used the same to irrigate his land and thereby prevented said waters from flowing down upon the lands of the plaintiff as they otherwise would have done. The Court in its findings of fact states that the defendant did not divert the waters of the said creek except during the freshest seasons of said years and during that portion of the dry seasons of said years, when if not diverted by the defendants said waters would have been absorbed by said soil and atmosphere before they reached the lands of said plaintiff, and that the volume of water was not by the acts of the defendant so diminished as in any manner to deprive plaintiff of sufficient water to irrigate the crop growing on his lands and for all domestic purposes.

In the second case judgment was rendered in favor of the plaintiff for one dollar damages and a decree was entered substantially the same as in the former action, and the defendant was enjoined "from ever hereafter diverting or obstructing in any manner any of said waters of said creek from the natural channel thereof, so as to prevent said waters, or any portion thereof, from flowing down to, or upon, the plaintiff's lands."

The Supreme Court affirmed the judgment of the District Court.

The case of Lawrence et al. vs. John Bymer was brought to recover damages for the wrongful diversion of the waters of Cottonwood Creek by defendants and for an injunction. The judgment of the Court was that the action should be dismissed at the cost of the plaintiffs and it was so ordered.

The Supreme Court affirmed the judgment of the District Court.

In all the cases cited damages for wrongful diversion were sought by the plaintiffs and injunctions restraining the defendants from diverting water. In no case was there sought the real adjudication and determination of the rights of the contending parties.

Where the litigation occurred concerning the waters of tributaries of the Humboldt River, it does not seem to have occurred to the litigants, or to the Court, that appropriators from the main stream below the junction of this tributary with the river had certain rights to the use of this water that demanded consideration.

LOVELOCK VALLEY LITIGATION.

Lovelock Valley lies at the western side of Humboldt County and is the valley into which the Humboldt River drains. The river empties into Humboldt Lake and there evaporates. Six main ditches are taken from the river in Lovelock Valley. The upper, or most eastern of these ditches is point of diversion, is known as the Young

ditch; the next is the Old Channel ditch, or Pitt ditch; the third is called the Irish-American; the fourth is the Southwest; the fifth is the Rogers-ditch, and the sixth is the Union Canal.

Each of these ditches has sought jealousy to guard and protect its rights as against the others. The Young ditch is a comparatively small ditch and diverts but a small amount of water. All the other ditches are fairly large and capable of carrying a much larger amount of water than they are usually able to obtain.

The Pitt, or Old Channel, ditch is a later ditch than any of the four ditches below it. It is, at the same time, a large ditch and it has consequently been jealously watched. Suits have been brought against the Pitt ditch by Rogers in the Federal Court. This suit was brought in 1898. It came to trial in 1902 and judgment was rendered in 1903. By this judgment and decree Rogers was given a priority over the Old Channel Ditch Company for 3,500 miner's inches of water to irrigate the lands of the plaintiff, amounting to 4,500 acres of irrigated land. It was shown that other lands amounting to approximately 1,000 acres were watered by the Rogers' ditch, but the owners of these lands were not parties to the suit and the judgment did not, therefore, take into account the water necessary for the irrigation of these lands. The judgment is, therefore, in favor of Rogers simply and not for the Rogers Ditch Company. It gives him a preferred right for water amounting to 3,500 inches for the irrigation of his lands, and the fact that this water is taken through the Rogers Ditch Company's ditch is of no particular advantage to the other users of water from that ditch.

Users of water under the Southwest ditch also brought suit against the Old Channel Ditch Company in the District Court of Humboldt County. This suit came to trial in 1903 and judgment was rendered in favor of the plaintiffs by giving them a priority over the Old Channel Ditch Company for 1,250 inches. Suit was also brought in 1891 by the Union Canal Company against the Old Channel Ditch Company in the District Court of Humboldt County. Judgment was rendered in favor of the plaintiff for 1,650 miner's inches of water as against the defendant. In each of these cases injunctions were granted against the defendant restraining him from diverting water from the stream whenever there is not sufficient water to supply the respective defendants. In no case was a complete adjudication of all the rights of the users of water on the stream even in Lovelock Valley sought or obtained, and in no case was any provision made by the Court for the selection each year of a person to divide or distribute the water in accordance with the decrees.

These suits in this valley alone probably cost not less than thirty thousand dollars, and their utter futility is by now probably recognized by all the contending parties. It would, of course, require fifteen such suits between the different ditch companies to adjudicate the rights of these companies in this manner and by the time they were tried through so many new interests would have arisen as to require a new adjustment of rights all around. More serious, however, than even this objection to this course of procedure is the fact that Lovelock Valley being at the lower end of the stream, and while the settlers here have been supposedly litigating their rights more and more new land has been brought under cultivation by the settlers on the tributaries perhaps two hundred miles away. Less and less water has come down the river to Lovelock Valley and the valley faces a perilous future. The settlers in Lovelock Valley have absolutely no means of defending themselves against a gradual, stealthy but certain encroachment upon their rights by the upper appropriators. No man can be familiar with the irrigation conditions from one end of the river to another. He does know that here a little and there a little along each tributary men are enlarging their irrigated acreage, but the growth is so gradual, and scattered over such an immense area that, if inclined to bring suit to protect himself, he does not know whom to sue. Year by year he sees his rights invaded, stolen from him and appropriated by others but by whom in particular he cannot tell. The litigation so far indulged in has been absolutely fruitless of any results to him except the engenderment of unending bitterness between himself and his near neighbors, and the entailment upon them and himself of a heavy and useless expense. I know of no subject of so much importance to the people of Nevada as the proper determination and protection of the water rights of the irrigators of the state. It should receive first place in the considerations of the Courts, the Legislature and the Executive officers of the State.

LITIGATION IN THE CARSON RIVER BASIN.

For the most part the litigation over water rights in the Carson River basin has been confined to the small streams rising in the canyons on the eastern slope of the Sierras. The courts have done their most effective work upon these mountain streams, because every appropriator was made a party to the suit and an adjudication of all the rights upon a creek was accomplished at the same time. Few, if any of these creeks have a flow during the summer months of more than three cubic feet per second and their waters are much coveted.

The decrees have, for the most part, provided for the division

of the waters of the creeks in but two different ways. First, by allotment of the use of the entire flow for a certain number of days or hours, as on Genoa Creek and Jack's Valley Creek; and second, by apportionment of fractional parts of the flow for all time, as on King's Canyon Creek and Clear Creek. In one case only, that of Hartshorn Creek, is the division based upon a unit of measurement. The most important suit ever tried concerning the water rights in the Carson River Basin was that known as the

Union Mill and Mining Company vs. H. F. Dangberg et al.

This action was brought in the United States Circuit Court on September 11, 1889, by the complainant as the owner of seven quartz mills situated along the banks of the Carson River in Ormsby and Lyon Counties, Nevada, against H. F. Dangberg and about one hundred and twenty-five other respondents, comprising all of the farmers residing in Carson Valley in Douglas County. The complaint charged the respondent with unlawful diversion of the waters of the river in July, 1889, and alleged "that complainant, in August, 1871, commenced eleven suits in this Court against about forty of the respondents herein, and that judgments therein were entered for complainant, some on the 8th of August and some on the 18th of August, 1873, * * * and it was there adjudged that complainant was entitled to the rights of a riparian proprietor in the waters of the Carson River."

The answer of the respondents alleged that complainant's injury, if any, was not due to respondents' acts but was occasioned by the unprecedented drought of 1889, that some of the respondents are riparian proprietors and entitled to water under former judgments, some are entitled by prior appropriation and some by prescription. They alleged that the agricultural interests of Carson Valley were of paramount importance as compared to those of the mill owners on the Carson River.

In answer to the argument of the respondents that the agricultural interests of Carson Valley are of paramount importance to those of the mill owners on the Carson River, the judge wisely asked, "But of what general use, independent of the wants and necessities of themselves and their families, would the products of their farms be unless the other industries which furnish a market for the crops were equally protected in their rights?"

After an able discussion on the "general doctrine advanced as to the superiority of rights acquired for the purpose of irrigating arable lands as against rights acquired for mining or milling purposes," the Court concluded by quoting from Gould on Waters, Sec. 232, as follows:

Whether the appropriation is for mining, as originally it was solely, or for mills, for irrigation, or for agricultural, horticultural, domestic or municipal purposes, the rights thereby acquired now stand upon the same footing, and an appropriation or use of water for one of these purposes is not justifiable when it interferes with a prior appropriation or location for another purpose.

In speaking of the results of earlier cases on the Carson River, the Court stated:

The former decrees in this Court settled but one question, viz: The respective parties thereto were riparian proprietors, and as such were equally entitled to make a beneficial use of the waters. * * * The Court declined to pass upon any other question.

After a consideration of the effect of such decrees, and of the variable flow of the stream at different seasons and the resulting insufficiency to supply all demands, it was declared that

A court of equity ought to have power by its decrees to reach the needs of justice. In many cases where similar facts existed, the Courts, in the application of riparian rules, have solved the difficulty by decreeing that inasmuch as both parties require the full flow of the stream at certain periods of time in order to make a reasonable use of the water, their rights could be declared, preserved, and made beneficial by decreeing to the respective parties the use of the full flow of the stream during different periods of time.

After elaborating upon the above argument, the Court continued:

In view of all the facts, my conclusion is that the complainant is entitled to a decree against all of the respondents, perpetually enjoining them and each of them from diverting the waters of Carson River upon their lands, or elsewhere, so as to prevent complainant from having the full and free flow of 6,000 inches of water, miner's measure, under a 4-inch pressure, for use at its mills, except from July 1 to October 1 of each year, and should be enjoined from making any other than an economic, beneficial and reasonable use of the water without waste from July 1 to October 1 of each year, and be required to return the surplus of the water after such use back into the river whenever the complainant can make a beneficial use of such surplus.

Subject to these rights of the complainant, the respondents are entitled to a decree allowing them at all times to make an economic, beneficial and reasonable use of the water, without any waste, and from July 1 to October 1, to the extent of taking all the water in the river when, and only when, all of it is absolutely required, owing to the scarcity of water in the river, to enable them to make such use of the water in irrigating their riparian lands without waste. (The word "riparian" is omitted in the final decree.) * * *

The decree against unnecessary and unreasonable waste should be made strong, clear and positive. The respondents are also entitled to a decree

• • • • •
 The decree requires the construction of drain ditches for the return of surplus water to the river.
 • • • • •

allowing them, and each of them, at all times to take and use a sufficient quantity of water from the river for their household and domestic purposes and for watering their stock.

Each of the respective parties was ordered to pay his own costs. The decree was filed September 20, 1897.

The effect of this decree was, in a measure, to protect the interests of both sides to the controversy. From July 1 to October 1 the mills are not always able to procure water enough to run their wheels. They are, however, protected in their rights through nine months of the year, and since the mines which formerly supplied these mills with ore have many of them closed down, all the ore the mills can get can be easily milled in nine months of the year.

On the other hand, through six months of the year the farmers do not need the water at all for irrigation, and through April, May and June there is water enough for both interests. It is difficult, indeed, to conjecture any other manner in which the Court could have decided this contest that would have at the same time so well protected the real and substantial interests of both sides.

LITIGATION IN ORMSBY COUNTY.

The first water suits in the Carson River Basin were brought in Ormsby County. The reason is patent. The overland trails made Carson City a very desirable location; and, as nothing could be raised without irrigation, rights to the few small streams were zealously guarded. Kings Canyon Creek and Gregory Canyon Creek flowed through the town. The purposes to which their waters were put by the townspeople is quaintly stated in the abstracts of the first suit.

Perkins et al. vs. Eureka Mining Company et al.

The first contest over the ownership of the waters of Kings Canyon Creek was started by a complaint filed by the citizens of Carson City, on July 28, 1864, against two mining companies and forty farmers on the streams above the town. The case was tried by the judge of the fourth judicial district by request of the judge of the second judicial district. Plaintiffs claimed the use of 9-10ths of said stream "for the purpose of protecting said town against destruction by fire, for the purpose of washing, cooking, irrigating the ground on which said town stands, and thereby supplying the wells of the town with pure and plentiful water; also for the purpose of

driving machinery and works of various kinds contributing to the general prosperity of said town; also to water the gardens of the citizens of said town and water the stock of said citizens and that of travelers through and sojourners in said town." The decree, filed May 2, 1865, allowed the citizens one-fourth of the water of Gregory Canyon and one-half that of Kings Canyon. The balance of the flow of the two streams was decreed to defendants occupying three bodies of land originally located in 1853. All other defendants were enjoined from using water from either creek, and except under license from those to whom water has been decreed.

It is of interest to note that at this early date Judge Goodwin held that the interests of agriculture were far more important than those of mining ever could be.

James Savage vs. William Welsh.

This was simply a condemnation proceeding. By the decree (April 26, 1869,) defendant was given right to use of water flowing in common ditch from 6 a. m. Wednesday, to 6 p. m. Sunday, and plaintiff was given right for the balance of the week.

Wood vs. Yerrington and Company et al.

In complaint, July 19, 1871, plaintiff avers that defendants have permanently turned water of Gregory Canyon Creek out of its natural channel above plaintiff's land, and prays for a decree granting him one-half of the waters of said creek and an injunction perpetually restraining defendants from diverting water to his injury. In amended complaint filed April 24, 1872, plaintiff states claim as riparian owner and says that defendants pollute water by running it in a flume with bark, chips, gravel, etc.

The decree (November 25, 1872,) apportioned the water among the plaintiff and defendants—the plaintiff and one defendant being awarded 32-100ths of the entire flow of the creek.

Mary J. Walsh vs. James Anthurs et al.

On September 24, 1864, the plaintiff, a successor in interest to one decreed a water right (1-12th of Gregory Canyon Creek and 1-6th of Kings Canyon Creek) in 1865, filed a complaint against all those above her on the two streams for depriving her of her rightful use of the waters, and asked judgment for \$2,000 damages and an injunction.

During the trial the plaintiff abandoned all claim to the waters of Gregory Canyon Creek—it having been shown that such water had not been used by plaintiff since decree of May, 1865.

By the decree, entered November 17, 1885, the plaintiff was awarded one-tenth of the waters of Kings Canyon Creek, and the remainder of the waters of said creek and all of the waters of Gregory Canyon Creek were divided among the defendants. The plaintiff was allowed costs from certain defendants on Kings Canyon Creek, but the cost bill was stricken out by a later order on the ground that no memorandum of costs was filed by plaintiff within time allowed by law. It was also ordered that certain defendants on Gregory Canyon Creek recover their costs from plaintiff.

The filings made upon these two creeks in 1889 are in accordance with the decree of this case.

The discharge of Kings Canyon Creek on August 5, 1902, was 2.10 cubic feet per second.

Mary J. Walsh vs. Joshua Robinson et al.

On complaint of Mary J. Walsh, Joshua Robinson and H. H. Anderson were found guilty of contempt of Court in violating decree and disobeying injunction of former case. Each defendant was fined one-half of the costs October 8, 1898.

P. D. Beebe vs. L. B. Defendorf et al.

The plaintiff, in complaint filed June 30, 1866, claimed to be the first appropriator (1863) of the waters of Riddle, or Rose, Canyon Creek, and asked for damages in the sum of \$1,000 and a permanent injunction against defendants. The decree (July 26, 1866,) refused the injunction and ordered the plaintiff to return costs to defendant.

On a rehearing (December, 1866,) the judgment was reversed and nominal damages in the sum of one dollar, and the costs of the suit, taxed at \$193.50, were allowed the plaintiff, and the defendants were forever enjoined from using the waters of the creek.

Dangberg and Schulz vs. Ross et al.

The filings made in 1889 upon Clear Creek are in accordance with the decree of the second judicial district court, filed April 24, 1872. The complaint was filed by Frederick Dangberg and Charles Schulz against twenty-three appropriators from the stream above them on June 21, 1871. The decree is responsive to the theory of appropriation only, as no distinctive claim of riparian ownership or otherwise, had been asserted.

The decree provided for the apportionment of the stream according to priority of appropriation and beneficial use. The percentages allowed are as follows:

	Per cent.
Plaintiffs	28
Henry Ross	19
James Cuthbert	3
Samuel Small	7
William Wilford	7
A. W. Burrill	16
John Neill	6
John Wood	2.2
Roland Varnum	2.5
E. H. Cannon	2.8
William H. Winters	6.5

The want of administrative authority is clearly shown on this stream. On November 12, 1898, A. J. Pedroli was found guilty of contempt of court for using more water than allowed him by the decree of 1872. He was fined the costs of the case, amounting to \$100.55.

The discharge of Clear Creek on August 4, 1902, was 2.81 cubic feet per second.

LITIGATION IN DOUGLAS COUNTY.

With the exception of one case on the East Fork of the main Carson, and one in the Federal Court on the West Fork, litigation has been restricted to the small mountain streams. That this field offered occasion for strife is evident from the cases abstracted. The first suit is one so often referred to that it is given here at some length.

Peter W. Vansickle vs James W. Haines et al.

The case was tried in the District Court of Douglas County at its May term, 1871, and a judgment was rendered in favor of the plaintiff for damages and costs, and for one-fourth of the water of Daggett Creek. On appeal to the Supreme Court of Nevada, the decree of the District Court was reversed (December 2, 1871).

The following is taken from the opinion of the Supreme Court, delivered by Associate Justice Whitman:

Respondent claims damages against appellants for past diversion of the waters of Daggett Creek, and prays an injunction against further continuance of the injury alleged. The District Court found for respondent, hence this appeal. * * *

The District Court finds that the water course in question, a small non-navigable stream, nowhere in its natural channel runs over the land of respondent, but does so run through the land of appellant Haines. It is also found that the respondent and Haines are the owners in fee of their respective lands, by patents from the government of the United States, that of Haines bearing the date of De-

seember 28, 1864, that at such date, and long prior thereto, respondent had appropriated and diverted from the natural channel of the creek, for his necessary purposes, a portion of its waters, which appropriation was interfered with by appellant in December, 1867, and that since that time they have used all, or nearly all, of the waters of the creek, in a flume constructed and worked by them jointly for running wood. The Court concludes that respondent acquired such a right by his appropriation as should be protected in equity.

He acquired no right against Haines prior to the date of the latter's patent which could affect that grant, because there was no title in Haines to be affected by acts of the respondent. He could acquire no rights against the United States, for as to that government he was a trespasser, in that he diverted water from its land not sought to be pre-empted by him. No presumption of grant arises against the sovereign, and no statute of limitation runs, save in some excepted instances, of which this is not one.

The Government of the United States then had, at the date of its patent to Haines, the unencumbered fee of the soil, its instances and appurtenances; that was passed to Haines, there being no reservation in his patent, and none is suggested. He became the owner of the soil and as incident thereto, had the right to the benefit to be derived from the flow of the water therethrough; and no one could lawfully divert it against his consent. What use he made of it, so that such use did not interfere with the adjoining riparian proprietors, was for him to elect. He had precisely the same right to use it for his flume as for his household, his cattle, or his land.

In this case it is urged that such use is beyond riparian rights. In a recent case in New York, an objection precisely contrary was made and the reply of the Court is a complete answer to either or both: "It is insisted by the defendant that equity ought not to interfere in behalf of the plaintiffs, for the reason that they do not want the waterpower afforded by the stream for use. This is a mere assumption. * * * But if the fact claimed were clearly established, it would not protect the defendant in wrongfully withholding the stream. No man is justified in withholding property from the owner, when required to surrender it, on the ground that he does not need its use. The plaintiffs may do what they will with their own." (40 N. Y. 206). From the facts found, it follows that appellant Haines, owner of the soil, has the right to the flow of Daggett Creek in its natural channel; what use he may make of it when there is beside the question, so far as respondent is concerned. The right of Haines protects his co-appellants. The decree of the District Court is reversed, and the case remanded, with instructions to enter a decree for appellants.

In response to a petition for rehearing, a very long and scholarly opinion was delivered by Chief Justice Lewis, denying the petition. In this response numbers of authorities of England and the eastern United States were cited in support of the original decree. The burden of the opinion was to show:

1. That the Federal Government has the absolute and perfect title to the public land.

2. That running water is primarily an incident to, or part of the soil over which it naturally flows.

3. That the right of the riparian proprietor does not depend upon the appropriation of the water by him to any special purpose, but that it is a right incident to his ownership in the land to have the water flow in its natural course and condition, subject only to those changes which may be occasioned by such use by the proprietors above him, as the law permits them to make of it.

4. That the government patent conveyed to Haines not only the land but the stream naturally flowing through it.

5. That the common law is the law of this State, and must prevail in all cases where the right to water is based upon the absolute ownership of the soil.

In discussing the rights of a riparian proprietor Justice Lewis says:

In other words, his right has a double aspect. First, the right of having the course of the stream continued through his land, which is absolute and complete, as against all the world; and, secondly, the right to make such use of the water, as it passes through his land, as will not damage those who are located on the same stream, and are entitled to equal rights with himself. * * * This is substantially that no man has a right to divert a stream from its natural course; for to say that water should be permitted to run as it used to is a prohibition upon all to divert it from its course, and thus the very maxim shows the proprietors have the right to claim that the stream shall be permitted to run through their land in its natural channel, independent of whether they make any material use of it or not.

In dwelling upon the operation of the common law the chief justice holds:

It (the common law) is a rule which gives the greatest right to the greatest number, authorizing each to make a reasonable use of it, providing he does no injury to the others equally entitled to it with himself; whilst the rule of prior appropriation here advocated would authorize the first person who might choose to make use of or divert a stream, to use or even waste the whole to the utter ruin of others who might wish it.

The concurring opinion of Associate Justice Garber states the attitude of the bench so ably that it is repeated here in its entirety:

If I believed that a re-argument could throw any additional light on the question involved, I should unhesitatingly advise the granting of the petition. Because I feel sensibly that the decision we have been compelled to render, in obedience to the law as it is written, and which it is our function to declare and not to alter, may work great hardship in this particular case; and, as a general rule applicable to a certain class of patents, may disappoint expectations long, though erroneously, considered by the public as well founded. Unfortun-

ately, this is not a case where common error can be said to have made itself law; and after as thorough an investigation as I am capable of making, I feel constrained to concur in the position so fully elaborated by the chief justice, that on every point essential to the case of the petitioner, not merely the weight of authority, but all the authorities, are against him. Against a clear and explicit rule of law, no arguments from convenience, however forcibly urged, can prevail. As to the existence and extent of the right of a riparian proprietor to use the water for irrigation, I intimate no opinion.

The discharge of Daggett Creek on August 4, 1902, was 1.01 cubic feet per second.

John James vs. Andrew Goodenough et al.

The complaint, filed May 1, 1871, charged the defendants with the unlawful diversion of the waters of Hartshorn Creek to the injury of the plaintiff, and asked for \$500 damages, the costs of the suit, and a temporary injunction against defendants. On May 17, 1871, the Court decreed the plaintiff the right to recover \$1 damages and costs of the suit, and perpetually enjoined the defendants from diverting any of the water of Hartshorn Creek except such as is in excess of seventy inches.

The case was appealed to the Supreme Court and the judgment of the lower court was affirmed on March 22, 1872.

The only filing made upon this stream in 1889 is that of the plaintiff in this case who claims "all the waters."

Almon M. Taylor et al vs. Richard D. Alvey.

This action was brought (May 23, 1871,) to enjoin the defendant from diverting the waters of Mott Canyon Creek, and for \$2,000 damages and costs of the suit. The plaintiffs claimed to have beneficially used the entire flow of the creek since 1853 until the wrongful diversion by the defendant in 1871. The defendant entered a general denial and alleged that his grantors appropriated and used about three inches of the water of said creek for domestic purposes and the irrigation of a small garden in 1857, and about one-eighth of the stream for the irrigation of six acres in the year 1859.

On June 3, 1871, judgment was rendered granting the defendant a prior right to three inches continuous flow and the recovery of his costs (\$113.50) from the plaintiffs.

Almon M. Taylor et al. vs. David J. Jones.

A copy of the decree is the only existing record of this case. The date of the filing of the complaint and that of the entering of the decree are identical with those of the preceding action. The decree gave the defendant a prior right to three-sixteenths of the waters of

Mott Canyon Creek and ordered the payment of his costs (\$139.75) by the plaintiffs.

In the filings made upon Mott Canyon Creek in 1869 the claim of the plaintiffs in this and the former case is for three-fourths of the entire flow, the claim having been entered equally in three names.

The discharge of Mott Creek on July 30, 1902, was 2.67 cubic feet per second.

James Hannum and A. A. Hannum *vs.* William M. Cary
and W. H. H. Cary.

A search for the papers of this case resulted in the discovery of a copy of the decree only. The plaintiffs were given the right to maintain their ditch across the lands of the defendants. They are also granted a prior right to one-third of the flow of Luther Creek and are allowed damages to the extent of \$100 and their costs of the suit (\$169.50). The complaint was filed May 13, 1873, and the decree on May 27, 1874.

Prevert *vs.* Stodick, Henningson and Nissen.

The complaint (filed April 22, 1878) recites that the plaintiff since 1861 has used the waters of a branch of East Carson River by means of a ditch across the lands of the defendants; that in the winter of 1877-1878 the defendants constructed a new ditch above the plaintiff's land and diverted the entire flow of the branch to the injury of the plaintiff. The decree (January 4, 1879,) restrains the defendants from diverting water from said branch unless sufficient is allowed to pass down the plaintiff's ditch to its full capacity. The defendants are ordered to pay the plaintiff's costs (\$120.30).

Vansickle *et al.* *vs.* Haines *et al.*

This was an action brought on July 24, 1879, by the residents of the town of Genoa against four ranchers owning land adjoining the town to settle the rights of the several parties to the waters of Genoa Canyon Creek. Both parties to the suit claim the waters of the creek by prior appropriation, as riparian proprietors, and by prescription; and both claim that their grantor was the first owner of the land.

The Court first divided the water in 72 parts, awarding each of the parties the amount decreed him. But the parties entered into a stipulation as to the division of the water by time. In accordance with this stipulation it was decreed (June 23, 1881):

That the respective parties to this action have the use of the whole of the waters flowing in the creek during the hours named of each day, as follows:

The plaintiffs from 3 a. m. to 12 m.

The defendant, J. W. Haines, from 3:40 to 5:40 p. m. of each day, and from 10:40 p. m. of each day to 3 a. m. of the following day.

The defendant, L. Frey, from 5:40 p. m. to 10:40 p. m.

The defendant, Jos. Donders, from 2:20 p. m. to 3:40 p. m.

The defendant, S. A. Kinsey, from 12:50 p. m. to 2:20 p. m.

The intervenor, Jos. Rayercraft, from 12 m. to 12:50 p. m.

The fillings made upon this creek in 1889 are in accordance with the decree cited above.

The discharge of Genoa Creek on June 23, 1902, was 1.05 cubic feet per second; and on August 4, 1902, 1.09 cubic feet per second.

Jos. Jones vs. John Q. Adams.

By the decree, filed August 29, 1879, the plaintiff "in connection with his land," is adjudged the owner of .7 of the waters of Sierra Creek, and the defendant, "in connection with his land," the owner of the remainder of the stream.

This case was appealed to the Supreme Court and the judgment of the lower court was "affirmed with costs" (April 1, 1885).

In his argument before the Supreme Court the counsel for appellant Jones, made a strong plea for the rights of a riparian owner and claimed that "The doctrine of riparian proprietorship laid down in Vansickle vs. Haines, *supra*, has become a rule of property in this State, and should be adhered to upon the principle of *stare decisis*."

The attitude of the Supreme Court towards the common law ruling is clearly shown in the following quotations from the opinion of the Court delivered by Justice Hawley:

In all of the Pacific Coast States and Territories prior to the passage of the Act of Congress of July 26, 1866, the doctrines of the common law, declaratory of the rights of riparian proprietors respecting the use of running waters was held to be inapplicable, or applicable to only a limited extent, to the wants and necessities of the people, whether engaged in mining, agriculture or other pursuits; and it was decided that prior appropriation gave the better right to the use of running waters to the extent, in the quantity and quality, necessary for the uses to which the waters were applied. This was the universal custom of the coast, sanctioned by the laws and decisions of the Courts in the respective States and Territories, and approved and followed by the decisions of the Supreme Court of the United States.

We are of the opinion that the ninth section of the Act of Congress confirmed to the owners of water rights on the public lands of the United States the same rights which they held under the local customs, laws and decisions of the Courts prior to its enactment; that the Act of Congress did not introduce, and was not intended to introduce, any new system, or to evince any new or different policy upon the part of the general government; that it recognized, sanctioned, protected, and confirmed the system already established

by the customs, laws and decisions of Courts, and provided for its continuance.

The case of *Vansickle vs. Haines*, in so far as the same is in conflict with the views herein expressed, is hereby overruled.

The filings made upon Sierra Creek in 1889 are identical with the apportionment made by the Court in this case.

The discharge of the stream on June 23, 1902, was 2.90 cubic feet per second; and on August 4, 1902, 1.55 cubic feet per second.

J. N. Winter vs. Robert Fulstone.

This action was brought on December 22, 1885, to recover damages for the alleged wrongful diversion of the waters of Jacks Valley Creek. During the trial of the plaintiff, defendant, and all of the ranchers of Jacks Valley signed a stipulation wherein it was agreed that each was the owner, during the irrigation season, of all of the stream for a certain time, out of every eight days, as follows:

Plaintiff, Winter, four days and six hours.

Defendant, Robert Fulstone, one day and twelve hours.

Henry Fulstone, six hours.

B. E. Nesmith, one day.

A. B. Johns, one day.

A decree was entered accordingly (May 8, 1886,) and the defendant was given judgment against the plaintiff for his costs amounting to \$285.10.

The plaintiff moved for a new trial which was denied. An appeal to the Supreme Court resulted in an order affirming the denial. A petition for rehearing was also denied by the Supreme Court.

It is of interest to note that the above stipulation is in accordance with a decree of the Territorial Court rendered at Genoa, in August, 1864, from which it appears that the plaintiff in this action was one of the plaintiffs in that, and the grantors of the defendant were the defendants. None of the papers in the original case (1864) can be found.

The filings made on the Jacks Valley Creek in 1889 constitute a copy of the decree quoted above.

The discharge of the creek on June 22, 1902, was 1.47 cubic feet per second; and on August 4, 1.68 cubic feet per second.

L. R. Frey vs. Jos. Jones, Feb. 7, June 20, 1894, and *James Cohrell, Jr., vs. Jos. Jones*, April 6, August 7, 1894.

These were two suits to recover damages for the alleged destruction of crops caused by back water from a dam maintained in Carson River by the defendant. In both cases the jury found in favor of the defendant.

Benjamin Palmer et al. vs. Alex. Scam, et al.

This suit was commenced July 10, 1896, to restrain the defendants from using the waters of Barber Creek and springs near the head of the creek to the injury of the plaintiffs, and also to prohibit the construction of a tunnel designed by the defendants to collect the waters of said springs. On April 23, 1898, judgment was rendered in favor of the plaintiffs.

John Anderson vs. Henry Bassman et al.

In December, 1899, forty-nine farmers along the West Carson River in Nevada instituted proceedings in the United States Circuit Court against thirty-two appropriators from that stream in California.

The complainants allege that they are riparians and entitled to water "for reasonable use for irrigation, stock, for household and domestic purposes; that there is necessity for use from March to October inclusive; that the supply is insufficient in July, August, September and October; that prior to the year 1865 they used 21,201 miner's inches of water under a four-inch pressure; that defendants pollute said stream by use of manure and other deleterious substances in their diverting dams. The amount of water each complainant claims is stated in inches, and the complaint prays for a decree awarding each the necessary amount and perpetually enjoining defendants from interfering with the use of same."

In their answer the defendants make separate denials to the allegations of complaint, name the riparians of their number, state individual claims aggregating 4,726 inches of water under four-inch pressure and ask for judgment fixing rights accordingly.

The evidence was taken before a Court referee and the argument before the Court was completed in March, 1903. The decision of Judge Morrow was rendered on August 12, 1905.

The decision is extremely lengthy and the decree based thereon covers nine typewritten pages. It is supposedly a victory for the complainants in that the costs of the action amounting to \$3,738 is taxed to the defendants, and in that the defendants are perpetually enjoined from diverting any water from the river for irrigation purposes during seven consecutive days out of every fourteen consecutive days during the months of June, July, August, September and October. The result is that June 1st all of the California users are required to close their headgates, taking into their ditches only sufficient water for stock and domestic purposes. This allows the Nevada irrigators the use of the water during the next seven days. June 8th the California users begin to irrigate again and the Nevadans

get water if any comes. The Nevada users are really decreed half the water. They get more than half if the decree is obeyed fully, for they get the drainage from the California lands.

When, however, it is taken into consideration that at least twice as much land in Nevada is irrigated from the West Carson as is the case in California, the decree seems to do but scant justice to their rights.

This long drawn out and expensive case resulted in no determination of priorities as between the plaintiffs and the defendants, and of course no such definition of rights as between the plaintiffs themselves or the defendants themselves. It was the first interstate water suit and, indeed, the only one concerning rights on an interstate stream ever tried in this state. It was watched with great interest by students of irrigation law everywhere. The result, while affording to Nevada irrigators a certain measure of needed relief, was a disappointment in that it left still unsettled the actual rights of each party as against all the others; it apparently put no value upon priority of appropriation and use; the basis of apportionment was not proportional to even the present appropriations. The vexed questions as to what law shall constitute the basis of division of water of interstate streams, when the laws of the two states differ radically in principle, are no nearer solution by reason of this decision than they were before.

LITIGATION IN LYON COUNTY.

Ophir Silver Mining Company vs. Carpenter et al.

This was a suit between two mill companies over the alleged wrongful diversion of the waters of Carson River. As the papers cannot be found among the county records, the exact date of the beginning of the action has not been ascertained, but the case was appealed to the Supreme Court and an opinion (4 Nev., 534) delivered in January, 1869.

The opinion is one often cited on account of its able discussion of "reasonable diligence." A few of the favorite extracts are as follows:

Where the work necessary to complete an appropriation of running water is not prosecuted with diligence, the right to the use of the water does not relate back to the time when the first step was taken to secure it; but dates from the time when the work is completed or the appropriation is fully perfected.

The law does not require any unusual or extraordinary effort, but only that which is usual, ordinary and reasonable.

Illness of the appropriator and his want of pecuniary means to prosecute the work, being matters incident to the person and not

the enterprise, are not such circumstances as will excuse great delay in the work.

Cardelli and Cardelli vs. Pfeifer.

On July 23, 1898, the above action was brought to recover the waters of Six Mile Canyon Creek and \$1,500 damages for the wrongful diversion of the same. The jury rendered a verdict for the plaintiffs and fixed the damages at the sum of \$1, August 4, 1898.

Gotelli et al. vs. Cardelli and Cardelli.

This suit was instituted March 24, 1899, to determine the rights of the plaintiffs to maintain a dam in the Carson River, and a ditch, both of which are on lands of defendants, to enjoin defendants from allowing waste water to damage said ditch; and for \$600 damages and costs. On June 10, 1899, the District Court decreed in favor of the plaintiffs and ordered the recovery of \$325 damages, and the costs of suit taxed at \$257.70.

Gotelli et al. vs. Cardelli et al.

This case was between the same parties as the preceding. The cause of the action was alleged wrongful diversion by the defendants. The trial began November 15, 1900, and on November 17, 1900, the jury found for the plaintiffs, granting a prior right to the full capacity of their ditch and allowing \$775 damages and costs of suit taxed at \$421.15.

Cardelli et al. vs. Comstock Tunnel Company et al.

The plaintiffs claimed to have used the waters flowing from Sutro Tunnel by and with the consent of the Sutro Tunnel Company (predecessor of Comstock Tunnel Company) since 1879. The suit was brought on August 13, 1900, to enjoin the defendants from preventing the waters from the tunnel entering plaintiff's ditch. The District Court ordered that the injunction applied for be refused, December 19, 1900.

The case was carried to the State Supreme Court and the judgment of the lower court was affirmed, December 17, 1901. In the opinion delivered by the Supreme Court in this case the subject of natural water courses was discussed. The following extract is well worthy of publication.

Where all the waters flowing through a tunnel are derived from drainage of a mine and of the country between the mine and the mouth of the tunnel, and from pumping into the tunnel from lower levels, and the water which has been used in the mine for electrical purposes, such tunnel is not a natural stream, and its waters are not subject to appropriation.

LITIGATION IN CHURCHILL COUNTY.

As far as contests over water rights are concerned, Churchill County has yet to experience its first.

Two cases are cited in the records of the county as water suits. One is known as the case of *Bailey vs. Cushman et al.* This was really a damage suit resulting from the alleged overflow of lands. The defendants moved for a non-suit and a judgment was entered accordingly, July 7, 1891. The defendants were allowed their costs.

L. Allen vs. Thomas Tournay and Charles Kaiser.

This was a suit to secure a division of the water in a certain ditch that plaintiff and defendants held in common. The result was an order of the Court for the construction of a suitable division box that should give to the plaintiff two-thirds of the water and the defendants the other third.

There are in Nevada a large number of creeks watering the lands of two or more users. The rights upon the creeks have been in some instances defined by Court decrees. Notable among the number mentioned above are Duck Creek, Steptoe Creek, and Ill-i-pah Creek in White Pine County, and Duckwater Creek in Nye County.

The suit that brought about the adjudication of the rights on Duck Creek is known as the case of *Thomas M. Dick vs. D. W. Ogden, et al.* This suit was tried at Hamilton in June, 1877, and concerned the rights of nineteen different irrigators upon the stream.

The judgment of the Court is given in such terms that each user is given his respective priority upon the stream and as against all subsequent appropriators has judgment entitling him to use sufficient water to irrigate a certain definite acreage of grain or meadow land. Each party to the suit is perpetually enjoined from interfering with the stream in such manner as to prevent those persons having prior rights to themselves from receiving the supply of water allotted them by the Court.

The order of the respective priorities and their several amounts is as follows:

First Priority—N. Kinsley, 20 acres meadow land; 45 acres grain and vegetable land.

Second Priority—E. Caldwell, 10 acres meadow land; 45 acres grain and vegetable land.

Third Priority—Thomas Pick, Plaintiff, 250 acres meadow land; 100 acres grain and vegetable land.

Fourth Priority—William Horton, 200 acres meadow land.

Fifth Priority—Bird and Fitzhugh, 60 acres meadow land; 10 acres grain land.

Sixth Priority—McGill and Wartick, 43 acres grain land.

Seventh Priority—William and John Blackenschefer, 42 acres meadow land; 55 acres grain land.

Eighth Priority—D. W. Ogden, 6 acres grain land; Monroe, 160 acres grain land; Theodore Webb, 30 acres grain land; A. M. Hall, 25 acres grain land; Thomas Freehill, 12 acres grain land.

Ninth Priority—John Middleton, 6 acres grain land; L. Kalkourki, 45 acres grain land; P. A. Wagner, 150 acres grain land.

Tenth Priority—J. B. Conger, undefined; William Denton, undefined.

This decree in this manner has defined the rights to water for about 1,300 acres of irrigated land upon this creek. The amount of water allowed by the Court per acre is defined to be that which is necessary to properly irrigate the same. It has been impossible to ascertain the cost to the litigants of this suit. The Court costs of the plaintiff were taxed against certain defendants by the Court and amounted to \$263.65. If the cost to each defendant was as much as this, these costs must have been between three and four thousand dollars, beside the attorney fees and expenses. It is a significant fact, that of all the irrigators named in this suit in 1877 upon Duck Creek, there is but one now owning any land on that stream, and there are but two persons, who, in 1907, were farming land and raising crops where thirty years ago were twenty families. Practically all the rights had then concentrated into the hands of these two men. In answer to the query as to what had become of all the other litigants, an old resident replied briefly: "They all went broke at the time of the suit and soon sold out and moved away."

The rights upon Steptoe Creek were adjusted in 1900. There were but four persons who were parties to the suit and the judgment and decree divided the water of the creek between them without preference or priority as follows:

Jacob Shallenberger.....	4-9ths of the stream
H. A. Comins.....	3-9ths of the stream
Martin Guptil and S. F. Hilp.....	2-9ths of the stream

One of the litigants remarked last summer: "My expenses in that suit were about \$6,500. I could have bought the other two ranches then for a little less than that. I have always been sorry that I did not do so." Within the last two years the rights upon these two creeks have nearly all been acquired by mining and town-site companies and the water will be used for domestic, mining and concentrating purposes.

THE STATE ENGINEER.

The Act of the Legislature providing for the office of State Engineer was passed in 1903. The real incentive to the passage of

this act is clearly shown in the last clause of the preamble introductory to that act, which reads as follows:

"Whereas, it is the desire of the State of Nevada to co-operate in every way with the Secretary of the Interior in the construction, operation, management and maintenance of irrigation works in the State of Nevada under said act, and it is to the interest of the State of Nevada that every inducement should be held out to the Secretary of the Interior by co-operative and helpful state legislation to enter upon the work of construction, operation, management and maintenance as aforesaid, now, therefore, the people of the State of Nevada, represented in Senate and Assembly, do enact as follows:"

The important provisions of the law are:

(1) All natural water courses and natural lakes, not in private ownership, belong to the public, and are subject to appropriation for a beneficial use.

(2) The right to the use of water so appropriated for irrigation shall be appurtenant to the land irrigated and beneficial use shall be the basis, the measure, and the limit of the right.

(3) The maximum quantity of water which may be used for irrigation purposes shall not exceed three acre-feet per year for each acre of land supplied.

(4) The office of State Engineer is created.

(5) The State Engineer shall co-operate with the Secretary of the Interior in all work of construction, maintenance, operation and management of irrigation works constructed by the Secretary of the Interior in and for the benefit of Nevada, and shall, in every way, facilitate the work of the Secretary of the Interior in carrying out the provisions of the "Reclamation Act" in Nevada.

(6) The State Engineer shall prepare for each stream a list of the appropriations of water according to priority.

(7) The State Board of Irrigation shall divide the State or Nevada into water districts and may appoint water commissioners to divide the water according to the adjudications in each district.

The intent of the law was that the State Engineer should arrive at an actual determination of the rights on each stream with as much expedition as possible. These rights should be determined from the history of each case, ascertained through the sworn statements of the irrigators themselves. At the time of the passage of the Act it was believed to be the intent of the Director of the Geological Survey not to proceed with the construction of irrigation works upon any stream until the vested rights upon that stream effected by the new works had been defined in some satisfactory way.

Mr. A. E. Chandler was appointed the first State Engineer and served in that office until May 1, 1905. He was succeeded by Mr. Henry Thurtell, who served until August 1, 1907, and who was then succeeded by Mr. F. R. Nicholas, the present incumbent.

As soon as Mr. Chandler entered upon the duties of his office he entered into an agreement with the officers of the Reclamation Service in Nevada, through which the State of Nevada shared with the Reclamation Service in the expense of making surveys of the irrigated land on the streams in Nevada. This was an arrangement of great advantage to the State, for by it the State Engineer's office secured maps made on a scale of four inches per mile of irrigated lands on the Carson, Truckee, Walker and Humboldt Rivers, and the cost to the State was not more than one-eighth of the actual cost of this work. As soon as these maps of the Carson Valley were completed, the State Engineer proceeded to collect the evidence necessary to make a determination of the rights on the Carson River in Douglas County, Ormsby County and Lyon County. The history of the origin and development of each person's right was ascertained by requiring each irrigator to supply by means of sworn statements the answers to certain questions, so framed as to develop the history of the actual appropriation and use of the water claimed.

The findings made from the evidence so collected were made in April, 1905, and under the law any person dissatisfied had two years in which to appeal from the standing given his right by the State Engineer to the Court having jurisdiction.

The rights on the Carson River determined by these findings covered thirty thousand acres of land and covered a period of fifty-three years, from 1852 to 1895. There were 376 certificates written in satisfaction of the various claims. A very few errors were made that the succeeding State Engineer sought to correct, but not one appeal was taken from a decision of the State Engineer.

The Legislature of 1905 modified the act of 1903 by repealing the section limiting each right to an amount of three acre-feet per acre for each irrigating season. The reason for this was that it had been conclusively shown that certain farmers, notably those in the Truckee Valley, used more than three acre feet per acre per year, for the irrigation of their lands. It had been demonstrated also that in certain instances a larger amount was actually necessary and beneficial. By the repeal of this section the only statutory regulation of the amount allowable is to be found in section I in the words, "beneficial use shall be the basis, the measure and the limit of the right." It is believed that this limitation, together with the provision for the appointment of water commissioners to distribute the water in accordance with the priorities determined and in accordance also with the needs of the crops growing, is sufficiently definite to protect irrigators in the enjoyment of their rights.

A section was added to the law in 1905 providing a method of

initiating new rights. By this law any person or corporation desiring to appropriate any of the public waters of the State of Nevada must make an application to the State Engineer for a permit. Provision is made for publication of a notice of the application. An opportunity is given for persons who believe their rights will be invaded by the allowance of the proposed appropriation to protest to the State Engineer against the allowance of the permit and a very large latitude is given that officer in arriving at a conclusion in regard to the alleged facts involved. He may hold a hearing and take evidence or make a personal examination of the premises, or both. He is, however, required by the law to satisfy himself concerning the proposed diversion and if, in any case, it will invade or impair the right of a prior appropriator, or be detrimental to the public welfare, it is his duty to deny the permit. In any case, any person dissatisfied with the State Engineer's decision can appeal to the Court having jurisdiction to have the decision of the State Engineer set aside or modified.

Since the passage of this act the very great development of the mining interests of the State has caused an unprecedented demand for water and has led to the filing of applications with the State Engineer's office for every little stream of water not before completely appropriated. The State Engineer has sought to know, through personal examination or inquiry, the condition concerning every appropriation, and wherever a protest has been filed against an appropriation every effort has been made to know the real facts before taking action. Up to August 1, 1907, upwards of three hundred applications had been acted upon; about fifty of these had been protested. Two appeals had been taken from decisions of the State Engineer. One of these has not yet come to trial; the second was dismissed by the Court by reason of the failure of the complainant to file the necessary guarantee of expenses. The provision of the law above referred to has resulted in the proper protection of the old rights against new appropriators and has resulted in the systematic recording, as well as definition, of all new rights. It is believed that it will save to the water users of the State many times its cost by the avoidance through this method of future costly and fruitless litigation.

During the summer of 1906, surveys were made of the valley of the Muddy River in Lincoln County. This is a small but very fertile valley in the southern portion of the State, watered by the Muddy River. It has an almost tropical climate and the fruits common to semi-tropical regions are grown here with success. The building of the Salt Lake, Los Angeles and San Pedro Railroad through

this section of country has afforded an outlet to market of these products. Fruit can be picked one morning and landed in Salt Lake or Los Angeles the next morning. The lands are, therefore, becoming of great value and it was desired that the water rights upon the stream be clearly defined before the stream became greatly over-appropriated. There were about three thousand acres of land under cultivation but there are on this land about fifty different users of water and it required one hundred and twenty-one certificates to satisfy the various claims. There was but one water suit in the district which had been in the Courts for seven years, and had cost, up to date, more than the land involved was worth. The other users of water on the stream were so desirous of settling up the whole matter at once that through the agency of an association of water users they purchased the lands of the complainant for more than the lands were worth and had the suit dismissed. The findings of the State Engineer were made in March, 1907. Up to this date, November 10th, no appeals had been taken to have any decision of the State Engineer set aside. A water commissioner was appointed July 1, 1907, by the State Board of Irrigation to distribute the water to the irrigators in accordance with the findings. The distribution accomplished through his agency has seemed to meet with very general approval.

THE WALKER RIVER ADJUDICATIONS.

Up to June, 1902, no litigation had occurred among the irrigators on the Walker River that had brought about any definition of rights on that stream in Nevada. In the month and year above stated suit was brought by Miller and Lux Company, as owner of a large area of land watered by the river in Mason Valley, against all the other irrigators in Nevada and T. B. Riekey in California. T. B. Riekey is the owner of a very large ranch in Antelope Valley near the upper end of the West Fork of the Walker River. He, however, resides in Nevada and was therefore within the jurisdiction of the Federal Court of Nevada, in which the suit was brought. There are a large number of irrigators on the East Fork of the Walker River in California that were not made parties to the suit. There were, too, in Nevada here and there a few small irrigators who were not named as defendants, but practically the suit if pressed to a judgment would be the means of having defined the rights of Miller and Lux Company as against all the users of water from the Walker River in Nevada, numbering about one hundred and twenty-five and against T. B. Riekey in California. The rights of these Nevada users as against each other, however, would remain undefined, furnishing a fruitful source for future litigation. This suit had been in the Courts until the

summer of 1905, when, in response to the request of a number of irrigators, the State Engineer sought to bring about a dismissal of the suit and a definition of the rights through the agency of his office. Conferences were held with the complainant company and with all of the attorneys representing different groups of irrigators. Conferences were also held with groups of irrigators in Mason Valley and in Smith Valley, and with various committees representing groups of interests. The result was that a set of stipulations were finally entered into by all the litigants in Nevada whereby it was agreed that the then State Engineer, Henry Thurtell, should collect the evidence concerning the use of water by all the irrigators of Nevada in the manner directed by the Statute of 1903, make findings thereon, publish the same and send a copy to each irrigator. Any person dissatisfied was allowed one hundred and twenty days in which to make written protest to any finding. A hearing was then to be held in which would be tried out the issues involved in each protest and upon the evidence so furnished the State Engineer was to make new and corrected findings and file these findings, together with the evidence, with the Court. The findings and evidence so taken were to be reviewed by the Court and corrected in such manner as to him seemed necessary, and finally issued as the findings of the Court and a decree entered thereon.

The whole situation was still further involved by the fact that upon the Walker Lake Indian Reservation at the extreme lower end of the river, there had been for thirty years an Indian Reservation. Many of the Indians living at, or near, the Agency were engaged in the practice of agriculture and were dependent upon the Walker River for their water supply for irrigation. The increased use of water above them had resulted in such diminution of the stream that these Indians had for several years been unable to irrigate their lands long enough to mature their crops.

Through the recommendation of the Commissioner of Indian Affairs, the United States Attorney General had directed the United States District Attorney for Nevada to prepare to bring suit against all the users of water on the stream to obtain a decree defining and protecting the rights of these Indians as against the other users. The State Engineer then sought the good offices of the Director of the Geological Survey, who, through the Secretary of the Interior and the Commissioner of Indian Affairs, induced the Department of Justice to direct the United States District Attorney to co-operate with the State Engineer to the end that the rights of these Indians should be defined at the same time, and in the same manner as were those of the other irrigators on the stream.

A copy of the stipulations entered into by all the irrigators on the Walker River in Nevada is given below.

IN THE CIRCUIT COURT OF THE UNITED STATES, NINTH
CIRCUIT, DISTRICT OF NEVADA.

THE PACIFIC LIVE STOCK COMPANY,
a Corporation, Complainant,
vs.
THOMAS B. RICKEY, et al.,
Defendants.

No. 731.

STIPULATION AS TO TRIAL OF CAUSE.

For the purpose of more conveniently determining the issues of fact existing between the undersigned as parties to the above-entitled suit, we, the undersigned, do hereby stipulate and agree as follows:

1. The proofs concerning the appropriation and use of the water of Walker River by the undersigned parties to this suit are to be gathered by Henry Thurtell, the State Engineer of the State of Nevada, and his associates, in the manner defined by the Statutes of Nevada, 1903, Chapter 4, Sections 1 to 14, so far as said statute is applicable under this stipulation. The said Henry Thurtell shall then, from the evidence so obtained, determine the respective priorities and extent thereof upon the stream, and the respective quantities of land which such priorities attach, and shall find the quantity of water in cubic feet per second to which each party hereto is entitled, and shall also find upon all questions pertaining to the use of the waters of said stream by the parties hereto, and by their predecessors in interest. Said proofs shall be assembled by him, printed in pamphlet form, together with his findings thereon, and a copy sent, either by mail in the usual manner or delivered personally, to each party to this stipulation. At any time within one hundred and twenty days after the said publication and delivery or mailing of said proofs, any of the parties hereto may file a protest against any finding or findings, stating in such protest wherein the findings are excessive or otherwise incorrect; and any findings or findings to which no such protest shall be filed shall be deemed allowed as of course. Such protests shall be heard by the said Henry Thurtell at times and places to be designated by him, upon reasonable notice to the parties involved in such protests and their solicitors. Upon the hearing of any protest, the claimant shall have the right and may be required to furnish additional testimony under oath concerning the contested findings, and the protestant shall be entitled to produce such evidence as may be relevant and competent; and all witnesses examined on such hearings shall be subject to cross-examination according to the

rules of law, and all the testimony and proceedings shall be reported by a competent shorthand reporter.

2. When proofs of appropriation and use shall have been so gathered, assembled, and published, and such protests made and heard as above prescribed, the said Henry Thurtell shall make such new, additional and corrected findings as the evidence and proofs require. He shall thereupon present to and file in this Court his findings upon said issues in this suit, as between the parties hereto, together with the evidence so taken, and serve a copy thereof within five days after said findings have been presented to the Court upon each solicitor or firm of solicitors signing this stipulation.

3. The findings so made and filed shall be subject to review and correction by the Court upon exceptions filed; and, when the findings are so settled by the Court, the final decree in this cause, so far as concerns the rights of the parties hereto as between themselves and their successors in interest, shall be based upon such findings and the law applicable thereto. Such exceptions shall be filed in said Court within sixty days after such service.

4. The expenses of the hearing upon any protest before said Henry Thurtell, including the fees and mileage of witnesses, the fees of the shorthand reporter, and the cost of depositions used on such hearings, shall be deemed costs in this cause and be taxed as the Judge of this Court may direct.

5. Should the said Henry Thurtell die, or cease to be the State Engineer, before the completion of said work, such part of the work theretofore completed may be used and adopted by his successor, if one is agreed to by all parties hereto, it being understood that his successor in said office shall not be entitled to proceed under this stipulation, except by consent of all parties hereto.

6. In making up his findings the said Henry Thurtell shall observe the following rules, which are hereby stipulated to be correct statements of the law applicable to this case:

(a) To constitute a valid appropriation there must be an actual diversion of the water from the stream and an actual application of the water to a beneficial use.

(b) The means employed in the diversion of the water and its application to use are immaterial, except that they must be such as to conduce to a reasonable and economical diversion and application, provided that all unused water shall be returned to the stream, where it is practicable.

(c) Every appropriator has the right to change at will the place and means of his diversion and carrying of the water, and the place and character of its use; and he does not thereby lose any priority of right which he may have acquired, except in so far as such change may be prejudicial to the rights of others previously acquired. For example, one who has appropriated water through a certain ditch may discontinue the use of that ditch, and carry the appropriated water through another ditch, heading at a different point on the stream, without losing his priority, except in so far as such change may deprive another person of a right acquired before the change. But, on the other hand, though one who has appropriated water to

run a mill may afterwards use that water for irrigation, he cannot make that change so as to prejudice those who, before he commenced to irrigate, had acquired rights by appropriation. A change in the use of water is not necessarily an abandonment of the appropriation for the first use.

(d) A valid right of appropriation may be lost by abandonment. A mere failure to divert or use the water, however long continued, does not constitute abandonment, unless accompanied with the intent not to again use it. The intent to abandon may be inferred from circumstances, but should not be presumed except from clear evidence. But while mere non-user does not amount to abandonment, that fact is competent evidence on the question of abandonment, and if continued for an unreasonable period it may indicate an intention to abandon, and may warrant the deduction of the fact of abandonment. The presumption, however, is not conclusive and may be overcome by other satisfactory evidence. Mere non-user, if continued for five years or more, may, however, result in a forfeiture of the right or render the right subservient to the prescriptive right of another.

(e) The notorious, peaceable, exclusive, adverse and continuous use under claim of right, by a user up the stream of water claimed to have been appropriated by another, at a point lower on the stream, gives to such adverse user title to such water by limitation or prescription, but such adverse user must have continued without adverse interruption for a period of five years, or more, after such prior appropriator had obtained a complete right of action therefor against such upper adverse user.

(f) Where an appropriator of water has prosecuted the work of appropriation with reasonable diligence and brought it to completion within a reasonable time, his right of appropriation relates back to the time when the first step was taken to secure it; but if the work of appropriation is not prosecuted with reasonable diligence and brought to completion within a reasonable time, his right of appropriation does not relate back to the time when the work of appropriation was commenced, but is to be deemed to have been acquired only at the time the work of appropriation was completed and the water actually diverted from the stream and put to a beneficial use. The appropriator must have exercised that degree of diligence which will indicate the constancy and steadiness of purpose and labor usual with men engaged in like enterprises, who desire and intend a speedy accomplishment of their designs.

(g) All questions of fact, or law or equity, or procedure involved in this suit, not provided for in this stipulation, shall be determined by the Court upon application of any party hereto, and all proceedings upon such application, including the giving of notice, shall be had and taken in accordance with law and the rules of the Court.

7. No party shall be entitled to present on the hearing of any protest any evidence other than through sworn witnesses or competent documentary evidence. No *ex parte* affidavit, or other *ex parte* statement, shall be received on such hearing except as against the person making the same, or his successor in interest. The said Henry Thurtell

may, in his discretion, either admit or exclude offered evidence, subject to objection, to be stated at the times such evidence is offered, or certify to the Court the question of the admissibility of any evidence objected to; and thereupon further proceedings upon the specific matter objected to, shall await the action of the Court thereon. If the said Henry Thurtell shall improperly admit or reject any evidence objected to, the Court, upon its review of the findings of the said Thurtell, shall admit such evidence, if the same ought to have been admitted, or exclude the same, if the same ought to have been excluded, and the Court shall thereupon correct said findings, or make new findings, according to the facts and without returning the matter to said Henry Thurtell for any further action by him. None but legal evidence shall be admitted or considered on the hearing of the protest. Any witness previously examined by the said Thurtell shall be subject to cross-examination by any party to the protest, providing such witness at the time of the hearing of the protest is living and mentally competent.

8. The Government of the United States of America may, at its option, become a party to the above-entitled suit and to this stipulation in the following manner, and within the time hereinafter specified: Immediately upon the filing of this stipulation the Clerk of said Court shall deliver in person to the United States Attorney for the District of Nevada a certified copy of this stipulation. If, within thirty days after said service of said certified copy, the Government of the United States of America shall, through its legally authorized officer or officers, file with the clerk of this Court a notice that it desires to become a party to this suit, and to this stipulation, and shall serve copies of said notice upon the solicitors for all the parties to this suit, then the Court may enter an order making the Government of the United States of America a party to this suit. Within thirty days after the making an entry of such order, the said Government shall file and serve upon the solicitors for all the parties to the suit, its pleading in this suit, which pleading need not be in any particular form, but which shall set forth, specially and particularly, what rights the said Government claims in or to the waters of said Walker River, and the basis and origin of the rights so claimed, and the times at which they respectively accrued; and such pleading shall be deemed sufficient to entitle said Government, in the most liberal manner possible, to the full and complete presentation of its cause of action or defense or equitable rights concerning the matters in controversy in this suit, or in anywise appertaining thereto, and to have the same adjudicated in and by the decree of the Court in this suit.

9. This stipulation shall have no force or effect until signed by all parties to this suit, and their solicitors, except Thomas B. Riekey; provided, however, that the same may be put in force and become binding, as between the parties subscribing the same, if an endorsement to that effect be made hereon and signed by Isaac Frohman or Frank H. Short, and Cheney & Massey, and Mack & Farrington, and George S. Green.

10. This stipulation is made subject to the approval of the

Court, and upon such approval it is agreed that the said Court may enter an order appointing the said Henry Thurtell a special Master in Chancery in this suit, to take such testimony and evidence and perform such duties therein as are provided by the terms of this stipulation. The findings and decree made as in this stipulation provided shall have the same weight, force, and effect as would attach to the same if this suit had been tried altogether in accordance with the usual rules and methods of practice of said Court.

11. Should complainant obtain judgment herein the same shall not be effective against the defendants signing this stipulation, unless this action is prosecuted against Thomas B. Riekey and his assigns to judgment upon the merits.

The above stipulations were the result of much study and discussion among the different attorneys who were employed in the case. These attorneys, with great public spirit, sought by all possible means to reconcile and compromise their differences to the end that each person's right might be completely defined, with substantial justice to every interest. They, however, were widely separated from each other. Some lived in Reno, some in San Francisco, one in Dayton and one at Elko. They were not always certain of the attitude their clients would take toward each proposed change. The State Engineer acted as mediator between conflicting interests, and at the expiration of many months the stipulations were in such form as to receive the approval of all the attorneys. They were then signed by the complainant company and by all the defendants. Many of these defendants had moved away since the filing of the suit and lived in other States. One by one these were sought out and their co-operation asked until when the stipulations were filed in March, 1907, they lacked but one signature that was considered important. Through April, May, June and July the evidence necessary to the determination was collected and tabulated and on July 30th the findings were made. These findings, together with the claims made by each person were then assembled in pamphlet form, printed and a copy sent to each claimant.

These findings covered all the rights to the use of water for irrigation purposes upon sixty-one thousand acres of land. They gave the priority of each right and the acreage to which the priority attached as well as the quantity of water in cubic feet per second allowed to each parcel of land. A distinction was made between the ditches. Certain ditches were allowed to divert eight-tenths of an inch per acre and others but six-tenths of an inch per acre. Very large ditches, or ditches that served low bottom lands, were put upon the six-tenths basis, while those that were small, or served high or bench land, were allowed eight-tenths of an inch per acre.

It required three hundred and forty water certificates to satisfy all the different rights. The priorities ranged from 1860 to 1906, covering a period of forty-six years. On the 22nd day of October, a meeting was held at the State Engineer's office in Carson City, at which were present nearly all the attorneys for the different irrigators and committees representing the different groups of irrigators. The findings were very thoroughly discussed by the persons present and it seemed to be the general desire of all that Mr. Thurtell should allow any person whose rights were at issue to correct any known error, and also to show wherein any inference had been improperly taken from the statements furnished, which were not always clear. It was agreed that any such correction must be made within the next succeeding twenty days, and that the findings should then be made up with the necessary corrections and a copy mailed to each person who was a party to the suit.

It was further understood that the one hundred and twenty days for the filing of protests described in the stipulations should run from the date of mailing the amended findings. It was also understood by those present that while not pledging themselves not to protest any finding that was deemed unsatisfactory, yet the weight of the influence and advice of those present should be against any protests.

During the succeeding twenty days a number of small corrections were sent to the State Engineer's office and a few delinquent affidavits were filed. The amended findings were then prepared and published and a copy sent to each person who had been a party to the suit.

Just prior to the expiration of the one hundred and twenty days allowed by the stipulations for the filing of protests, a protest was filed by an association of farmers known as the Walker River Water Users Association, against all the findings concerning the rights of Miller and Lux, claiming that these findings were excessive.

The same Association filed a number of protests of minor importance relative to the rights of some of the members of the Association.

In accordance with the stipulations and with the consent of counsel the hearing upon the protests began at Reno, September 14, 1908. The majority of the minor protests were withdrawn and the hearing upon the other protests never went farther than the examination of one witness for each case.

In the hearing of the protests relative to the rights of Miller and Lux, however, a very stubborn contest ensued. Testimony was taken for sixteen days continuously. Upon October first an adjournment was taken until November 23rd. Upon that date an adjournment was

again taken until December 12th. The hearing began again upon that date and continued for ten days. During these sixteen days of the hearing a little more than thirty witnesses were examined and the complete presentation of the case would have required the examination of nearly as many more. Both sides seemed then desirous of reaching an agreement relative to the rights involved, without going to the labor and expense of any further Court proceeding. Three days were consumed in negotiations looking to a settlement. Upon the third day an agreement was reached whereby a private stipulation was entered into between Miller and Lux and the protesting association of farmers. By the terms of this agreement the rights of Miller and Lux as against the members of the Association were defined and the protests are to be withdrawn. Adjournment has been had until March 2, 1909, at which time the agreement is to be formally entered into between the contracting parties and the protests withdrawn.

This brings to a satisfactory close a most memorable contest, involving as it has more than sixty thousand acres of valuable land, and the substantial rights of very many people. The proceeding has been carried through at the minimum of cost. The definition of all right has been made complete and conclusive.

The attempt to try out the rights of Miller and Lux by a court proceeding has been an object lesson of the futility of trying to settle the water rights of irrigators upon a large stream by the ordinary methods of procedure of a court. It is safe to say that to have tried out by the usual methods the rights of each user of water upon the Walker River and to have obtained testimony sufficient to have made as complete and conclusive a definition of all rights as has now been obtained, would have taken twenty years of time and would have cost ten times as much as the controversy just concluded has done.

The chief difficulty about securing a settlement of a controversy over water rights in the manner above outlined is the large number of people involved who have lived as neighbors for many years, and among whom jealousy of each other and suspicion of strangers is likely to be characteristic.

Upon the part of any person seeking to bring about such a settlement it requires a never-dying optimism, a temper that never allows itself to be ruffled by impertinence or distrust, a strong conviction of the merit and usefulness of the plan he advocates, an absolute divorce on his part from identification with any interest that can be affected by the litigation, and more than all else constancy of effort and purpose, and integrity of character.

The State Engineer's office in Nevada has come to stay. The law

creating the office, as revised in 1907, furnishes a practical working basis for the determination of water rights as between Nevada irrigators. By its methods in the last four years all the rights have been completely settled in three drainage basins, namely, those of the Carson, the Walker, and the Muddy Rivers. The rights to the use of water have been determined upon ninety thousand acres of land. All the previous litigation in the State, covering a period of fifty years, has not defined the rights to five thousand acres of land. The cost to the State of the State Engineer's office for four years has been thirty thousand dollars. The water litigation that has been indulged in has cost an unknown amount—certainly hundreds of thousands of dollars.

Much of the effectiveness of the office will depend upon the efficiency and probity of the State Engineer. It should be the care of every irrigator to jealously guard the office that it may never become the spoil of a party victory, or be occupied by an incompetent, or a grafter. It is not in any sense a clerical position and should never be allowed to become a political one. It requires a man of engineering knowledge, of diplomacy, and of tact, and one of such capacity and mental equipment as to be able thoroughly to master the principles of law involved in the questions that come to him for decision. It does not make ten cents worth of difference to any citizen of the State whether the office is occupied by a Democrat, a Republican, a Prohibitionist or a Mugwump. It does make, and always will make, a great deal of difference to all the irrigators of the State whether or not the office is occupied by an incompetent, or unworthy, political tool, or by a man equipped for the work who will discharge his duty with fearlessness, with skill, and with tact. The State Engineer will have much to contend with. Farmers, as a rule, are seldom united in opinion on one subject. It is for him to show the value and the importance to them of the work he is doing, and he must be able to show at all times the entire justice of the course of action he takes. He will need an unbounded optimism, a high ideal, a tact for understanding men and dealing with them, a power to see the effect of present action on the future, and, more than any other single quality, a probity that never wavers.

